EDUCATION AND SELECTED PRACTICE CHARACTERISTICS OF BLACK DENTISTS

FINAL REPORT

Contract No. HRSA 240-85-0030

Submitted to:

Bureau of Health Professions
Health Resources and Services Administration
Department of Health and Human Services
5600 Fishers Lane, Room 8-103
Rockville, Maryland 20857

Contractor:

Bureau of Economic and Behavioral Research
American Dental Association
211 East Chicago Avenue
Chicago, Illinois 60611

Subcontractor:

RRC, Inc.
3833 Texas Avenue
Suite 256
Bryan, Texas 77802

January 6, 1988

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INTRODUCTION

A. General

This report presents the findings of a study titled "Education and Career Patterns of Black Dentists" (contract number HRSA 240-85-0030) which was funded through a contract to the American Dental Association (ADA) from the Bureau of Health Professions, Health Resources and Services Administration, Department of Health and Human Services. This project was conducted by the Bureau of Economic and Behavioral Research of the American Dental Association and RRC, Inc., subcontractor to the ADA, an economic consulting firm located in Bryan, Texas.

B. Purpose of the Project

A statistical study which examined the progression of blacks from application to dental school through entry into dentistry upon graduation was conducted. The project included identifying relevant data sources, documenting data from these sources that relate to issues about black dentists, merging and constructing relevant data into work files for statistical analyses, and conducting analysis of the dental education of blacks and some characteristics of black dentists. The statistical analysis focused on the progression of blacks from prior to application to dental school including family characteristics, high school and pre-dental school characteristics; to application to dental school; to enrollment in dental school; to graduation from dental school; and, to practice, specialty, and location characteristics. This progression by black dentists is also depicted in Figure 1.

The results of this project will be used to assist in examining the effectiveness of programs to increase the number of black dentists in the US. Previous efforts to develop such programs have been based on little information about black students, their pre-dental school history, successes and failures among black dental students, and career choices made among black dentists. The statistical information compiled and presented in this report, although limited due to data constraints, may assist in development of future program planning and analysis.

C. Project Advisory Committee

A Project Advisory Committee was selected for the contract to provide guidance and advice throughout the contract period. Members of the Committee were designees from (1) The National Dental Association, (2) The National Dental Association Foundation, (3) The American Dental Association, (4) The American Association of Dental Schools, (5) Howard University School of Dentistry, (6) Meharry Medical College, School of Dentistry, and (7) a school with mostly non-minority students, but with a good record of minority recruitment and assistance. The members of the Advisory Committee and their affiliations are as follows:

Dr. Joseph L. Henry, Chairman
Associate Dean
Government and Community Affairs
Harvard School of Dental Medicine

Dr. Roosevelt Brown
Past-President
National Dental Association

Dr. James Lassiter
President
National Dental Association Foundation

Dr. Enid Neidle
Assistant Executive Director
Division of Scientific Affairs
American Dental Association

Dr. James P. Roberts
Assistant Dean
University of Illinois
College of Dentistry

Dr. Jeanne Sinkford
Dean
Howard University
College of Dentistry

Dr. Eric Solomon
Assistant Executive Director
AADSAS & Data Resources
American Association of Dental Schools

Dr. Rueben C. Warren
Dean
Meharry Medical College
School of Dentistry

At the first meeting of the Advisory Committee, discussions centered on the background of the project, several data sources to be used in the project, the plan of analysis developed during the initial stages of the project, statistical methodology, and schedules for other project activities. The second meeting of the Advisory Committee was held to review the draft final report of the project and to advise project staff about alternative means of disseminating results of the study.

D. Project Constraints and Limitations

The statistical analyses completed for this project were totally dependent on the availability of data collected for other purposes. Thus, variables available for analysis of data were fixed since the types of data collected in previous years constrained the extent of analysis in this project. However, the several data sets which were linked and merged offer information that cuts across time and builds a time series of data about the progression of blacks from application to dental school to post-graduation.

The database was intended to include as much consistent and appropriate information as possible. Upon review of several data sources, the extent of the historical data used in the project covers the years from 1973 to 1985. (See Section II Data Set Construction.) The key data set for identifying information at the time of application to dental school was not available in magnetic form prior to 1973. Additional efforts were considered to include data from the years 1968-1972. Data were offered from Meharry Medical College School of Dentistry on blacks enrolled in dental school for the period 1968-1972 to provide a basis of comparison on the type of data available. These data were not used for this project, though, since they began with enrollment in dental school (rather than application to dental school) and represented only those students enrolled in Meharry (rather than nationally).

The data used in this project relate to the years from 1973 through 1985. Information on blacks enrolling in dental school is limited to the period from 1973 through 1981. The year 1981 was the limiting years for applications since 1985 is the most likely year of graduation for those who enrolled and graduated, and because 1985 was the last year for which post-graduation information was available for new graduates. The ADA's 1982 Distribution of Dentists Survey (DOD), a census of dentists, provided information on dentist occupation and location for those who enrolled during the period 1973 through 1977 and the ADA's Surveys of Recent Dental Graduates (SRG) for the years 1983 through 1986 served as the source of occupation and location data for those enrolled during the period between 1978 and 1981.

The data cover two different periods with respect to trends in applicants to dental school and first year enrollment in dental school. The period 1968 through 1975 represents a period of increasing applicants, while 1976 through 1985 was a period of declining applicants. Thus the applicant period for this study represents two years when total applicants were increasing and ten years when total applicants to dental schools increased.

It should be noted that an important group of blacks is omitted from this study. Since the study starts with those blacks who applied to dental school it necessarily omits those blacks who were qualified to enter dental school but did not apply. Thus, this study omits from analysis comparisons of qualified blacks who applied to dental school with qualified blacks who did not apply.

E. Organization of the Report

The remainder of this report is organized according to the logical progression of blacks making application to dental school, enrolling, graduating and entering the practice of dentistry. Section II of the report contains a description of the construction of all data files used in the report and identifies the several data sources. Blacks making application to dental school and an examination of the characteristics of black applicants is presented in Section III.

Section IV contains an analysis of the blacks who applied to dental school and enrolled compared to those who did not enroll but applied. The comparison of those who enrolled and completed dental school with those black enrollees who did not graduate is presented in Section V. Section VI contains an analysis of choices made by those black graduates who entered into active practice of dentistry.

Section VII presents an analysis of characteristics and indicators for first year enrollment, graduation, and occupational decisions. Section VIII contains a summary of the results of the project.

Figure I

Dental Career Path and Decision Points

Phase I: Express Interest in Dentistry by Taking the Dental Admission Test

Phase II: Enroll in Dental School

Phase III: Complete Dental School

Phase IV: Begin Practicing General Dentistry or Enter Specialty Program

Phase V: Establish Dental Occupation, Location, and Ownership Status

I. REVIEW OF LITERATURE

Background

The literature related to data about minority individuals, including blacks, in the US related to application and applicants to dental schools, dental education, graduation from dental schools, and patterns of dental practice is limited. Much of the existing literature deals with historical estimates of the number and growth in black dentists, forecasts of black dentist representation among the profession, and other issues related to limited participation in and increasing the supply of blacks in dental education and the profession. The purpose of this review is to highlight the existing literature as it is related to data about issues of education and selected practice characteristics of the black dentist.

Enrollment, Attrition and Graduation

During the current 1986/87 academic year, total enrollment of black students in dental schools reached 1,032 representing the second largest enrollment (1,037 in 1984/85) and including 5.5% of total enrollment in dental schools (1). There are 286 black first year students representing 6.3% of total first year enrollment in 1986/87 which compares to the average size of 282 first year black enrollees since the 1971/72 academic year (see Table 1). The number of black first year dental students has varied from a low of 245 in 1971/72 to a high of 299 in the academic years of 1981/82 and 1984/85.

Black graduates of the nation's dental schools have grown during the past 17 academic years from 55 in 1970/71 to a high of 227 in 1981/82. In 1986, 195 blacks graduated from dental school which compares to an average 17 year black graduation class size of 173 graduates.

As a percentage of total enrollment in dental schools, black enrollment has grown from 2.3% in 1969/70 to 5.5% in 1986/87. This growth in percent enrollment has not, however, been continuous over the 18 year period shown in Table 2. The percent of total enrollment by blacks increased from the 1969/70 level of 2.3% to 5.2% in 1975/76 where it remained relatively stable for the next six years. In 1982/83 total enrollment of blacks increased to 4.7% and continued growth until the 5.5% occurring during the 1986/87 year. Over the past 16 years, blacks as a percentage of first year enrollment have averaged about 5.1% which has varied from a low of 4.5% during 1978/79 and 1979/80 to a high of 6.3% in 1986/87. The percent of dental school graduates who are black has averaged about 3.4% since 1969/70 ranging from 1.5% in 1970-71 to 4.2% in the years 1981/82 and 1984/85.

During the past 15 years, enrollment of minority students including black, Hispanic, American Indians and Asian-American students has more than tripled (see Table 3). Enrollment of minority students has grown from 307 in 1970/71 to 1,110 in 1986/87. The first year enrollment of black students, however, has not kept pace with these gains by all minorities. While first-year minority enrollments increased from 412 (8.8% of the total) in 1971/72 to 1,110 (24.4% of the total) in 1986/87, the proportion of black students in entering classes remained relatively stable at 4.5% to 6.3%. Increasing minority enrollment has, however, continued to occur simultaneously with the decreasing total first-year enrollments in dental schools. Total first-year enrollment is now down 27% from its peak in 1978, while first-year enrollment by all minorities increased 63% over the same period. In comparison, first-year enrollment by black students in 1986/87 is only about 2% greater than the size of entering black students in 1978.

Since the 1973/74 academic year, total first-year withdrawals from dental school have steadily increased from 3.5% of first-year students in 1973/74 (5,455 students) to 7.2% of first-year enrollment in 1984/85 (4,937 students excluding first year enrollments in Emory and Oral Roberts Universities) (3). Reasons for withdrawals have generally been categorized as due to personal or scholastic reasons. Since 1979, the percent of withdrawals due to personal reasons or problems has generally declined while reasons due to academic performance have generally increased. About 33% of the attrition among first year enrollees in 1984/85 were minority students. Of the group of minorities who withdrew, about 47% were blacks compared to 3% American Indians, 37% Asian-American and 14% Hispanic Americans. Among the black first year students withdrawing from dental school in 1984/85, 74% were for scholastic reasons compared to 67% for American Indians (only 3 withdrew), 62% for Asian-Americans and 57% for Hispanic-Americans (see Tables 4 and 5).

About 27% of the 1981/82 attrition of students among the entering freshman were from minority groups. Among the minority group that did withdraw from dental school, 48% were blacks compared to 2% American Indian (1 withdrew), 23% Asian-American, and 27% Hispanic-American. Among the blacks withdrawing from dental school (1981/82 first year freshman), about 74% withdrew due to scholastic reasons.

Numbers of Professionally Active Dentists

The earliest data reporting the number of black dentists practicing in the US indicated 1,778 practicing in 1930; 1,471 in 1940; 1,681 in 1950 (2.1% of all active); 1,840 (2.0% of active) in 1960 and 2,206 (about 2.2% in 1970) (4). In 1980, the Bureau of Health Professions, US Department of Health and Human Services, reported an estimated 3,630 black dentists representing about 2.9% of the total active dentists in the US. By 1985 it was estimated that of the total 138,000 active dentists about 3,800 were black dentists (2.7% of active dentists) including 800 black female dentists (2). Since 1980, women have constituted about 40% of black dental graduates compared to 20% of women among all graduates from the nation's dental schools. The percent of black graduates from dental school who are female reached 47% in 1985/86.

Of an estimated 138,00 active dentists in 1985, about 3,800 or 2.7% are black (1). Currently, the Bureau of Health Professions (BHPr), Department of Health and Human Services, projects an increase in the number of black dentists to about 6,300 by the year 2000. This estimate indicates blacks representing about 3.9% of active dentists and exhibiting a 15 year growth of about 66%. This growth compares to a 15 year growth of only 15% for all active dentists in the US (6). Based on these projections, total enrollment is expected to remain level while minority enrollment is expected to increase. These projections also include estimates that women will represent about 32-35% of black dentists by the year 2000. Other characteristics of the BHPr forecasts with regard to black dentists over the 15 year period 1985-2000 include:

1. According to a "middle" forecast, graduates would increase by 12.5% from current levels of 224. A low forecast estimates a decline of 39% compared to a high forecast of 59.3%.
2. The 15 year growth in black dentists of 66% compares to a projected growth of 83% among the black physicians in the US.
3. The percent of black dentists who are male is expected to decline from the current level of 79% of black dentists to 65% by the year 2000. Correspondingly, black female dentists are expected to increase from the current 21% to 35% in the year 2000.
4. While US dentist to population ratios are expected to increase slightly

from 59 per 100,000 to 60 per 100,000, black dentists per 100,000 are expected to increase from 13 to almost 18 (17.6).

5. Growth in the total number of dentists is expected to slow to a rate of 2.8% for the 5 year period, 1995-2000 (a rate of growth of less than 1% per year). While the rate of growth the number of black dentists is expected to be lower by the year 2000, the growth rates themselves are considerably higher. The growth in black dentists is expected to decline from a 5-year growth of 23.7%, 1985-1990 to a projected 14.5%, 1995-2000.

It should be noted that the number of blacks graduated in 1985 (223) and in 1986 (195) were below the BHPr forecasted levels of 236 and 224 respectively. Therefore, these projections may be suspect.

Career and Practice Patterns

One of the major concerns of the early 1970s was an anticipated shortage of dentists forecasted for the foreseeable future. The shortage of dentists projected at that time seems to be related to population forecasts, and the expectations linked to greater demand for dental services. Programs were being proposed that would tend to significantly reduce financial and other barrier to health care including dental services. While the anticipated increase in demand for dental services induced policy to increase the production of dentists, there was a corresponding forecast of an increase in minority dentists needed to respond to the care for under-served, minorities, and the poor of the inner city and rural areas. Several strategies were proposed for increasing the supply of minority dentists such as in Linn (13), Mulvihill (11), and Thompson (12). The latter pointing out that forecasts of the need for greater numbers of minority dentists would not be sufficient on its own merits. Greater interaction, commitment and attitude would be required from counseling of minority students throughout the primary and secondary school systems to the profession informing others of the numerous opportunities within the field of dentistry and oral health.

Linn (13) reported on an early survey of black dentists that included data on occupations considered in addition to dentistry, occupations preferred to dentistry, occupations recommended to the student and background data such as occupation of father and mother, and identification of individuals influencing the final choice of dentistry. Linn reported that over 90% of the black dentists surveyed considered other occupation, that most came from families who alone were unable to finance their education, and that the greatest of concerns were educational costs and the future costs of establishing a practice. Nearly two-thirds of the black dentists indicated then that they decided on dentistry as an occupation while in college or soon after college and about 22% said they made the decision while in high school.

Several individuals have examined the issues related to the level of representation of blacks in the dental profession and the possible means for increasing the supply of black dentists including Henry, Sinkford, Richardson and Mulvihill (7-11). Much of this literature includes discussion of the factors that have to be altered to significantly influence greater representation by blacks in the dental profession such as educational and cultural factors that impact on recognition of the value of education and commitment on the part of government and organizational groups toward addressing the needs of disadvantaged minorities. Sinkford (8) and Henry (9) propose the development and strengthening of a feeder system from the elementary grades through college that would identify, motivate and support the aspirations of disadvantaged students with potential to succeed in the professions. They further recommend the creation of a federal program that would identify, recruit and fund talented minority professionals to receive leadership training in public policy, business, public health and administration. Henry cites reduced capitation funding of dental schools, increased tuition and fees, decreased scholarship and loan funds, higher cost loans, lack of sufficient role models and erosion of commitment as barriers to increased participation of blacks in the dental profession. Recommendations are offered to reconsider eligibility guidelines, restricting funds to minorities that are under represented in the health professions, under-served in the US population, and economically disadvantaged.

Summary of Literature

While the existing literature about blacks in dentistry contains references to policy, existing and forecasted numbers of black dentists, barriers to access for disadvantage minorities, and patterns of educational involvement (enrollment, attrition and graduation), little data is available to shed greater information about the education and career choices by blacks with regard to dental education and entering the dental profession. It is anticipated that this study will assist with this lack of data by examining the differences among blacks who applied and enrolled in dental school and those who did not enroll; blacks who enrolled and graduated versus those who did not graduate; and the (dental) occupational choices among black graduates from dental school. Unfortunately, a major and important element of this issue will not be reported on here regarding the difference between blacks who apply to dental school and those qualified blacks who could apply but do not.

Table 1

Number of Black Students, First-Year Students and Graduates of US Dental Schools, by Academic Year, 1969-70 to 1986-87

School Year	Black Students	Black First-Year Students	Black Graduates
1969-70	357	NA	85
1970-71	453	NA	55
1971-72	597	245	74
1972-73	765	266	110
1973-74	872	273	154
1974-75	945	279	187
1975-76	977	298	213
1976-77	955	290	215
1977-78	968	296	203
1978-79	977	280	182
1979-80	1,009	274	190
1980-81	1,022	283	214
1981-82	999	299	227
1982-83	1,001	289	200
1983-84	1,000	276	219
1984-85	1,037	299	223
1985-86	1,019	281	195.
1986-87	1,032	286	-

Source: American Dental Association, Council on Dental Education. *Annual Report on Dental Education*, 1986-87. *Minority Report; Supplement of Annual Report on Dental Education*, 1973-74 through 1985-86.

Table 2

Black Students and Graduates as a Percentage of All Students, First-Year Students and Graduates of US Dental Schools, by Academic Year, 1969-70 to 1986-87

School Year	Percentage of Black Students	Percentage of Black First-Year Students	Percentage of Black Graduates
1969-70	2.3%	NA	2.3%
1970-71	2.7	NA	1.5
1971-72	3.5	5.2%	2.0
1972-73	4.2	5.0	2.8
1973-74	4.5	5.1	3.4
1974-75	4.7	5.0	3.8
1975-76	5.2	5.2	4.0
1976-77	4.5	4.9	4.1
1977-78	4.5	5.0	3.8
1978-79	4.5	4.5	3.3
1979-80	4.4	4.5	3.7
1980-81	4.5	4.7	3.9
1981-82	4.5	5.2	4.2
1982-83	4.7	5.3	3.5
1983-84	4.9	5.3	4.1
1984-85	5.0	6.0	4.2
1985-86	5.2	5.8	3.9
1986-87	5.5	6.3	NA

Source: American Dental Association, Council on Dental Education. *Annual Report on Dental Education*, 1986-87. *Minority Report; Supplement of Annual Report on Dental Education*, 1973-74 through 1985-86.

Table 3
First-Year Enrollment in Schools of Dentistry in the United States By Racial/Ethnic Category: Academic Years 1971-72 through 1986-87[a]

			Racial/Ethnic Category				
Academic Year	Total First-Year Enrollment	First-Year Minority Enrollment	Black	Hispanic	American Indian	Asian	Other Minority
			Number of Students				
1970-71	4,565	307	--	--	--	--	--
1971-72	4,705	412	245	40	4	112	11
1972-73	5,287	475	266	56	5	138	10
1973-74	5,389	529	273	69	12	141	34
1974-75	5,555	551	279	75	12	142	43
1975-76	5,697	637	298	75	22	186	56
1976-77	5,869	645	290	96	19	174	66
1977-78	5,890	641	296	110	10	225	b
1978-79	6,235	681	280	122	16	263	b
1979-80	6,066	745	274	163	19	289	b
1980-81	5,964	772	283	160	12	317	b
1981-82	5,789	876	299	183	21	373	b
1982-83	5,433	879	289	187	16	387	b
1983-84	5,207	873	276	172	19	406	b
1984-85	4,983	981	299	200	17	465	b
1985-86	4,803	1,105	281	312	16	496	b
1986-87	4,554	1,110	286	316	9	499	b
			Percent				
1971-72	100.0	8.8	5.2	0.9	0.1	2.4	0.2
1972-73	100.0	9.0	5.0	1.1	0.1	2.6	0.2
1973-74	100.0	9.8	5.1	1.3	0.2	2.6	0.6
1974-75	100.0	9.9	5.0	1.4	0.2	2.6	0.8
1975-76	100.0	11.2	5.2	1.3	0.4	3.3	1.0
1976-77	100.0	11.0	4.9	1.6	0.3	3.0	1.1
1977-78	100.0	10.9	5.0	1.9	0.2	3.8	b
1978-79	100.0	10.9	4.5	2.0	0.3	4.2	b
1979-80	100.0	12.3	4.5	2.7	0.3	4.8	b
1980-81	100.0	12.9	4.7	2.7	0.2	5.3	b
1981-82	100.0	15.1	5.2	3.1	0.4	6.4	b
1982-83	100.0	16.2	5.3	3.4	0.3	7.1	b
1983-84	100.0	16.8	5.3	3.3	0.4	7.8	b
1984-85	100.0	19.7	6.0	4.0	0.3	9.3	b
1985-86	100.0	22.8	5.8	6.4	0.3	10.2	b
1986-87	100.0	24.4	6.3	6.9	0.2	11.0	b

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[a] Excludes students at University of Puerto Rico

[b] The category of "Other Minority" was eliminated from first-year student data for 1977-78 and subsequent years.

SOURCE: American Dental Association, Council on Dental Education. *Minority Student Enrollment and Opportunities in US Dental Schools*, for 1971-72 and for 1972-73. *Minority Report; Supplement of Annual Report on Dental Education 1973-74 through 1985-86. Annual Report on Dental Education 1984-85 and 1986-87.*

Table 4

Freshman Race/Ethnic Differences: Attrition by Race/Ethnicity, 1984-85

Race	Number	Percent of Withdrawals	Total 1st Year Enrollment	Percent Of Enrolled
American Indian	3	0.84	17	0.34
Asian or Pacific Islander	44	12.33	456	9.24
Black	55	15.41	296	6.00
Hispanic	16	4.48	255	5.17
White	235	65.83	3,913	79.26
Unknown	4	1.11	0	0
Total	**353**	**100.0**	**4,937**	**100.01**

Source: American Dental Association, *Dental Student Attrition: Supplement 5 to the 1985-86 Annual Report on Dental Education.* Council on Dental Education, Division of Educational Measurements, June 1986.

Table 5

Freshman Race/Ethnic Differences: General Reasons for Attrition by Race/Ethnicity, 1984-85

Race	Total Number Withdrawn	Personal	Scholastic
American Indian	3	33%	67%
Asian or Pacific Islander	44	38	62
Black	55	26	74
Hispanic	16	43	57
White	235	53	47

Source: American Dental Association, *Dental Student Attrition: Supplement 5 to the 1985-86 Annual Report on Dental Education*. Council on Dental Education, Division of Educational Measurements, June 1986.

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II. DATA SET CONSTRUCTION

The data used in this study have been compiled from several sources including the American Dental Association's Dental Admissions Test (DAT) file, the ADA's Survey of Recent Dental Graduates (SRG), the ADA's Distribution of Dentists (DOD), the US Bureau of Census' City Reference File and the US Bureau of Health Professions' Area Resource File.

The availability of data collected for previous studies limited the areas which could be addressed in this study. The data sets which were compiled as a part of this project did present opportunities to examine the progress of blacks from application to dental school through dental school and post graduation, but the nature of the data makes the results more suggestive than conclusive.

The sources of the demographic data limit the analysis to some extent since, for the most part, the variables are not compatible across the years. The gender, undergraduate college region, and science grade point average were the only variables which could be linked across the surveys. Thus, the totals, when other variables are examined, will be well below the number of applicants included in each of the phases of the study due to the incompatibility of the data sources.

Initially, the American Dental Association (ADA) provided information on blacks who took the Dental Admissions Test (DAT) between 1973 and 1985. (An applicant was defined as a black if at least one of the race variables indicated he/she was black, and none of the other race variables conflicted. There were three separate race variables on the DAT Master File: the race from the DAT application, a race variable taken from an AADSAS questionnaire, and a race variable from a CIF questionnaire. Since the race variable does not necessarily define citizenship, it should be noted that this study is not explicitly limited to US blacks only.) This initial data set included several DAT scores, demographic information from two different survey forms, and an enrollment status (1973-1981 only) indicating whether or not the applicant had enrolled in dental school. In the early years (1973-1979), the demographic data were taken from an American Association of Dental Schools (AADS) survey administered at the time of the test; in the later years (1980-1985), they were taken from the ADA's Confidential Information Form (CIF), also administered at the time of the test. The demographic data can be easily traced to their source by the first letter of its mnemonic name: an A indicates AADS data, and a C is used for CIF data. This initial DAT data set consisted of 6,271 blacks who took the DAT between 1973 and 1985 and was used in the first phase of this study.

In the second phase of the project, which examined blacks who enrolled in dental school, several methods were used to determine whether or not an applicant had enrolled in dental school. However, each of these methods required reducing the initial DAT data set to the 4,572 blacks who took the DAT between 1973 and 1981. The data set had to be reduced to this time frame because these were the only years for which the ADA enrollment data were available and/or for which graduation and dental practice information could be available. (A person entering school in 1981 would most likely graduate in 1985, and this is the most recent year for which new dental graduates data are available.) Thus, 1973-1981 were the only years for which graduation information was available, and graduation information was used, in part, to determine enrollment.

A person was assumed to enroll in dental school if the ADA enrollment year was non-zero and at least three years prior to an indicated graduation date or if he/she was found to have graduated from dental school whether or not an enrollment date was given. The enrollment date was provided by the American

Association of Dental Schools through the ADA on the original DAT file, and additional graduation data were obtained from the ADA's 1982 Distribution of Dentists (DOD) and 1983-1986 Surveys of Recent Dental Graduates (SRG).

The DOD and SRG data were appended to the DAT data using social security numbers where available and name matches where there were no social security numbers. (The ADA does not have complete social security data on the DOD and SRG data sets, so name matches had to be used. The name on the DOD or SRG file was matched to the name on the DAT file.) When name matches were used, some restrictions had to be used to avoid "matching" BRICE to BRUCE. The first and last name had to match exactly; the only acceptable difference was a missing middle initial. (For example, JON SMITH would not match to JOHN SMITH, but it would match to JON J. SMITH.) Of course, these restrictions may have caused some graduates to be missed——most notably females who took the DAT before getting married and then marrying, and changing last names, while in dental school.

After performing the social security and name matches, a total of 1,858 of the 4,572 blacks who took the DAT between 1973 and 1981 were found to have enrolled in dental school. Of these 1,858, a total of 1,609 were found to have graduated by 1985.

The data used in the final phase of this study—the examination of characteristics among black dentists after graduation from dental school—were also taken from the DOD and SRG files. These data were appended by name or social security number as described above. In addition, demographic data about the area in which the dentist located were taken from the US Bureau of Census' City Reference File (CRF) and the US Bureau of Health Professions' Area Resource File (ARF).

The Area Resource File (ARF) was compiled by the Bureau of Health Professions to provide an examination of health care providers, facilities, utilization, and expenditures. In addition, data are included for population and health professions training. The ARF and CRF data were appended to the data set using the dentist's practice zip code.

III. BLACKS TAKING THE DAT, 1973-1985

As has been previously discussed, data for a total of 6,271 blacks who expressed an interest in dental school by taking the DAT between 1973 and 1985 (inclusive) were included in the initial phase of this study. The DAT is administered twice a year by the Council on Dental Education of the American Dental Association. The test is broken into four basic areas: survey of natural sciences, reading comprehension, quantitative ability, and perceptual ability. In addition, an overall average is computed. DAT scores are reported in standardized scores ranging from - (to signify -1) to 9. There are no strict passing or failing scores; a score of 4 signifies average performance on a national basis. The mean DAT score for the applicants included in this phase of the study is 2.6.

Tables 6 through 21 provide background information on the blacks taking the DAT between 1973 and 1985. Almost two-fifths (39.2%) were female (Table 6), and 30% had fathers with at least a baccalaureate degree (Table 7). More than 18% had fathers with an advanced degree, and 68.5% had fathers who did graduate from high school. The mothers' educational patterns were similar to those of the fathers', except that a higher percentage of the mothers had completed at least high school (Table 8).

The distribution of the father's occupation is essentially bimodal with laborer representing 18.1% of the total and employment in professional fields accounting for 17.8% of the total (Table 9). (The occupational mappings are presented in an appendix to this report.) Almost six percent of the blacks taking the DAT between 1973 and 1985 had fathers who were employed in dentistry. Most of the mothers were reported as domestic workers (28.2%) or professionals (23.8%) (Table 10).

There was not a significant percentage of mothers employed in dentistry, but ten percent were employed in health care fields—including dentistry.

Over 40% of the blacks taking the DAT during this period lived in a home with a combined parents' income of less than $20,000 per year (Table 11). Conversely, less than ten percent of the parents' combined incomes were over $60,000 per year. Almost half (48.0%) of the blacks included in this phase of the study were from cities with a population of 100,000 or more persons, and only 8.5% came from farms or towns of less than 2,500 people (Table 12). Over half (55.%) ranked in the top twenty percent of their high school class, with about 5% coming from the bottom two quintiles (Table 13). In college, 70.4% of the blacks examined chose a natural science or engineering related major (Table 14). (A mapping of the undergraduate majors to the aggregate codes is contained in the appendix to this report.) Less than 5% majored in humanities.

Of the blacks who took the DAT between 1973 and 1979, almost nine-tenths of them were in or had completed their fourth year of college (Table 15); almost thirty percent had completed 6 years of college——both on the undergraduate and graduate level. About three-fourths of the 1980 through 1985 applicants had completed more than ninety hours of college credits before taking the test (Table 16). (The apparent discrepancy between the hours of college completed and years of college completed is a direct result of the data being taken from two different time periods—the AADSAS data versus the CIF data.) In addition, almost half attended undergraduate colleges in the South Atlantic (32.0%) and East North Central (17.1%) regions of the US (Table 17). (A breakdown of the states included in each region is presented in an appendix to this report).

About one-half (48.8%) of the students included in this phase of the research had a cumulative college grade point average (GPA) between 2.6 and 3.0 (A = 4.0)

(Table 18). One-fourth were between 1.0 and 2.5. The science GPA was 2.5 or lower for 47.1% of the students examined, with 20.8% averaging 3.0 or higher in their science classes (Table 19). In their non-science courses, over 43% of the students posted a GPA of 3.0 or higher (Table 20); this is double the percentage that had averaged 3.0 or higher in their science classes.

Finally, the ages of the students when they took the DAT range from 17 to 48 with the mode being 21. In fact, over half were ages 21 to 24 (Table 21).

At this point the reader should again note that many of the demographic data have been taken from two incompatible survey instruments — the AADSAS survey for the 1973 through 1979 period and the CIF survey for the 1980 through 1985 period. The mnemonic names provide a key as to which data set was used — if the first letter of a variable is an A, the data came from the AADSAS survey; conversely, an initial C denotes the CIF survey. Thus, discrepancies such as the hours of college completed versus years of college completed can be traced directly to the two unique underlying data sets. Furthermore, it should be stressed that the results presented herein should be viewed as more suggestive than definitive given the nature of the underlying data.

Having seem these characteristics, it is interesting to examine whether or not they had any statistically significant effect on the DAT scores of the individuals included. Tables 22 through 101 present contingency tables for the DAT overall average, science average, reading average, quantitative average, and perceptual average. The two-way tables allow the computation of a statistic which follows a chi-square (X^2) distribution; one can use the statistic to examine the statistical significance—or impact—of certain characteristics on the distribution of DAT scores across the various classes. Thus, a significant X^2 value would indicate that the

DAT scores could be distributed differently among the different classes (males and females, for instance).

The X^2 statistic for each of the DAT scores, except the DAT perceptual average by gender, is significant indicating that the DAT scores appear to be distributed differently across gender (Tables 22 through 26). For the overall DAT average, a lower percentage of males scored 2 or below (48.1% to 49.5% for the females), and a higher percentage of males scored 3 and above (51.9% versus 50.5% for the females). This same pattern holds true for the DAT science score and DAT quantitative score, but the roles are reversed for the DAT reading score as a lower percentage of females scored 2 or below and a higher percentage of females scored 3 and above.

The DAT average (Table 27), DAT quantitative score (Table 30), and DAT perceptual score (Table 31) appear to be distributed differently among the father's educational attainment. Only 38.9% of the black applicants whose fathers had at least a college degree scored 2 or below on the DAT average, and 61.1% of this group scored 3 and above. Conversely, only 52.8% of those blacks taking the DAT between 1973 and 1979 whose fathers had not completed college scored 3 or above on the DAT average. A similar pattern can be seen in the DAT perceptual score; only 38.3% of those applicants whose fathers had completed college scored 2 or below versus 50.2% of those whose fathers had not completed college. This same trend also holds true for the DAT quantitative score.

The mother's education appears to affect the DAT reading score (Table 34), DAT quantitative score (Table 35), and DAT perceptual score (Table 36). The X^2 statistics for DAT average (Table 32) and DAT science score (Table 33) by mother's education are not significant. Just as the DAT scores rise with the level of the father's educational attainment, so do they rise with the mother's educational level.

In fact, 55.8% of the applicants whose mothers had at least a college degree made a 3 or above on the DAT reading score versus only 45.0% of those whose mothers had not completed college. For the DAT quantitative score, the comparable percentages are 42.2% versus 36.0%, and 61.3% versus 49.8% for the DAT perceptual score.

The DAT average appears to be distributed differently across the father's occupation (Table 37), while the other DAT scores do not appear to be (Tables 38 through 41). A higher percentage of those applicants whose fathers were in business/managerial, dental, and health-related fields scored 3 or above on the DAT average. The DAT reading and quantitative scores appear to be distributed differently across the mother's occupation (Tables 44 and 45). A higher percentage of black applicants whose mothers were in business/managerial, clerical, and health-related fields made 3 or above on the DAT reading score, while the higher-ranked mothers' occupations for the DAT quantitative score were business/managerial, laborer, and professional.

The DAT reading, quantitative, and perceptual scores appear to be distributed differently across the applicant's parents' combined income (Tables 49 through 51). The percentage of black applicants scoring 2 or below on the DAT reading test falls from 54.5% for those whose parents' combined income is less than $20,000 per year to 42.9% for those whose parents' combined income is above $20,000 per year. This same pattern holds true for the DAT quantitative (64.0% to 54.6%) and perceptual scores (56.1% to 41.6%).

In examining the DAT scores by the size of the applicant's permanent residence, one finds that the X^2 statistic is significant for the DAT average, science score, and reading score (Tables 52 through 54). In each case, a higher proportion of the applicants from cities of more than 1 million residents scored 3 or above for the respective DAT score; this was particularly true for the DAT average (52.9% in large cities versus 43.3% for applicants from cities smaller than 1 million population) and the DAT science score (50.2% versus 43.9%).

The distribution of the DAT scores across the applicant's high school rank was significant in every case examined (Tables 57 through 61). The proportion of applicants scoring 3 and over is higher the higher the applicant's high school rank. For the DAT average, this percentage rises from 42.6% for the lowest 40% of the class to 47.1% for the top 20%. This trend is also present in the DAT science score (40.7% to 47.7%), DAT reading score (46.3% to 57.3%), DAT quantitative score (25.9% to 47.1%), and DAT perceptual score (37.5% to 55.5%).

The DAT average (Table 62), DAT reading score (Table 64), and DAT perceptual score (Table 66) do not appear to be distributed differently across undergraduate majors; however, the DAT science score (Table 63) and DAT quantitative score (Table 65) do. A higher proportion of those applicants who listed a dental or health-related undergraduate major scored 2 or below on the DAT science test than those applicants listing other undergraduate majors. For the DAT quantitative score, 62.1% of the dental undergraduates scored 2 or below.

The years of college an applicant has completed appears to affect each of the DAT scores examined (Tables 67 through 71). For each of the DAT scores, the proportion of black applicants scoring 3 or above decreases as the years of college completed increases.

Since the hours of college completed is likely to be highly correlated with the number of years an applicant has attended college, it is not surprising to find that all of the DAT scores examined, except the reading score, are distributed different across the hours of college education completed (Tables 72 through 76). In each case, the proportion of applicants scoring a 3 or above peaks for the 61 to 90 hours completed group. This is true for the DAT average (54.4% for the 61 to 90 hours completed groups versus 44.0% for all others), the DAT science score (52.2% versus 43.9%), the DAT quantitative score (51.4% versus 39.4%), and the DAT perceptual score (59.0% versus 50.6%).

The region in which the applicant attended undergraduate school also appears to affect the DAT scores examined (Tables 77 through 81). The New England and Pacific regions tend to have a higher proportion of applicants scoring 3 or above on the DAT scores examined, and the East South Central and West South Central regions typically have a higher proportion of applicants scoring 2 or below.

The applicant's grade point average (GPAs)——the cumulative college GPA, the science GPA, and the non-science GPA——all appear to be distributed across DAT scores differently. Tables 82 through 86 present the DAT scores by cumulative college GPA; Tables 87 through 91 present the scores by college science GPA; and, Tables 92 through 96 present the scores by college non-science grade point average. The X^2 statistic for each of these tables is significant except for the DAT average by cumulative college GPA (Table 82) and the DAT perceptual score by non-science GPA (Table 96). In every case, the proportion of applicants scoring 3 or above on the respective DAT rises as the cumulative college GPA rises. This is true for the DAT science score (36.6% or those with a cumulative college GPA of 1.0 to 2.5 scored a 3 or above versus 67.8% of those with a cumulative college GPA of 3.6 to 4.0), the DAT reading score (42.5% to 55.6%), the DAT quantitative score (33.1% to 63.3%), and the DAT perceptual score (41.8% to 62.3%).

A similar trend is seen for the DAT scores by college science GPA (Tables 87 through 91). The proportion of applicants scoring 3 or above on each of the DAT sections examined rises steadily as the college GPA rises. However, a dramatic jump is exhibited for the DAT science score—from 54.0% of the applicants with a college science GPA between 3.0 and 3.5 scoring 3 or above to 70.8% of those with a college science GPA of 3.6 to 4.0. This jump is also present in the DAT quantitative score (44.8% to 56.5%) and the DAT perceptual score (52.1% to 62.3%).

Tables 92 through 96 present the DAT scores by non-science GPA. The same pattern exhibited in the other GPA measures is present for the non-science GPA. The proportion of students scoring 3 or above increases as the non-science GPA increases.

Finally, the distribution of the DAT scores across the applicant's age is significant in every case examined (Tables 97 through 101). Since the DAT scores peaked at three years of college completed, one might expect the DAT scores to also peak at 20 or 21. This is the case as the higher proportion of DAT scores 3 or above falls in the 17-20 category for each of the DAT scores examined.

Table 6

Black Applicants by Gender

SEX	Num	Percent
F	1645	39.18 %
M	2554	60.82
Total = 4199		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 7

Black Applicants by Father's Education

AFED	Num	Percent
GRADDEG	429	18.22 %
SOMEGRAD	71	3.01
OLLDEG	212	9.00
SOMECOLL	313	13.29
BUSTECH	123	5.22
HSGRAD	464	19.70
SOMEHS	358	15.20
ELEMED	239	10.15
SOMEELEM	146	6.20
Total = 2355		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 8

Black Applicants by Mother's Education

AMED	Num	Percent
GRADDEG	323	13.28 %
SOMEGRAD	147	6.04
COLLDEG	281	11.55
SOMECOLL	366	15.05
BUSTECH	130	5.35
HSGRAD	594	24.42
SOMEHS	367	15.09
ELEMED	158	6.50
SOMEELEM	66	2.71
Total = 2432		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 9

Black Applicants by Father's Occupation

AFOCCODE	Num	Percent
BUS	264	11.69 %
CLE	60	2.66
DEN	131	5.80
HEA	98	4.34
LAB	408	18.06
OTH	382	16.91
PRO	402	17.80
SAL	97	4.29
TEC	417	18.46
Total = 2259		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 10

Black Applicants by Mother's Occupation

AMOCCODE	Num	Percent
BUS	102	4.43 %
CLE	201	8.73
DOM	648	28.15
HEA	233	10.12
LAB	94	4.08
OTH	244	10.60
PRO	548	23.81
SAL	124	5.39
TEC	108	4.69

Total = 2302

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 11

Black Applicants by Parents' Income

CPARINC	Num	Percent
0-9.9K	378	17.13 %
10-19.9K	518	23.47
20-29.9K	435	19.71
30-39.9K	313	14.18
40-49.9K	217	9.83
50-59.9K	147	6.66
60K&OVER	199	9.02

Total = 2207

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 12

Black Applicants by Size of Permanent Residence

CPERMRES	Num	Percent
0-2.5K&FARM	194	8.49 %
2.5-25K	483	21.14
25-100K	513	22.45
100K-1M	577	25.25
OVER1M	518	22.67

Total = 2285

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 13

Black Applicants by High School Rank

CHSR	Num	Percent
0-40	108	4.77 %
41-60	260	11.48
61-80	633	27.95
81-100	1264	55.81

Total = 2265

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 14

Black Applicants by Undergraduate Major

AMAJOR	Num	Percent
DENTAL	161	6.57 %
HLTH	159	6.49
HUMAN	112	4.57
NTSCI	1725	70.38
OTHER	109	4.45
SOCSCI	185	7.55

Total = 2451

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 15

Black Applicants by Years of College Completed

AYRSCOL	Num	Percent
3&UNDER	216	10.50 %
4	889	43.20
5	359	17.44
6	594	28.86

Total = 2058

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 16

Black Applicants by Hours of College Credit Completed

CEDHRS	Num	Percent
0-60	208	9.15 %
61-90	362	15.93
91-120	737	32.42
BACCDEG	853	37.53
ADVDEG	113	4.97

Total = 2273

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 17

Black Applicants by Undergraduate College Region

UGSTATE	Num	Percent
ENC	724	17.12 %
ESC	621	14.69
MA	466	11.02
MTN	30	0.71
NE	128	3.03
PAC	359	8.49
SA	1353	32.00
WNC	135	3.19
WSC	412	9.74

Total = 4228

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 18

Black Applicants by Cumulative College Grade Point Average

CCCGPA	Num	Percent
1.0-2.5	584	25.66 %
2.6-3.0	1111	48.81
3.0-3.5	491	21.57
3.6-4.0	90	3.95
Total = 2276		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 19

Black Applicants by College Science Grade Point Average

CCSGPA	Num	Percent
1.0-1.9	412	8.97 %
2.0-2.5	1750	38.09
2.6-3.0	1476	32.13
3.0-3.5	795	17.31
3.6-4.0	161	3.50
Total = 4594		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 20

Black Applicants by College Non-science Grade Point Average

ANSGPA	Num	Percent
1.0-1.9	42	1.81 %
2.0-2.5	580	25.00
2.6-2.9	691	29.78
3.0-3.5	836	36.03
3.6-4.0	171	7.37
Total = 2320		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 21

Black Applicants by Age

AGEDAT	Num	Percent
17-20	254	5.57 %
21	828	18.14
22	703	15.40
23	487	10.67
24	410	8.98
25	330	7.23
26-30	1028	22.52
31&OVER	524	11.48
Total = 4564		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 22

DAT Average by Gender

DATAVG / SEX	F	M	Total
-	48	35	83
0	99	104	203
1	235	389	624
2	433	700	1133
3	467	699	1166
4	247	415	662
5	88	149	237
6&OVER	28	63	91
Total	1645	2554	4199

Chi-square = 25.4565
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 23

DAT Science Score by Gender

DATSCI / SEX	F	M	Total
-	72	134	206
0	157	197	354
1	293	390	683
2	378	585	963
3	315	505	820
4	242	400	642
5	123	190	313
6&OVER	65	153	218
Total	1645	2554	4199

Chi-square = 18.3025
Degrees of Freedom = 7
Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 24

DAT Reading Score by Gender

DATREAD / SEX

	F	M	Total
-	52	114	166
0	84	269	353
1	205	462	667
2	352	561	913
3	341	493	834
4	269	338	607
5	193	203	396
6&OVER	149	114	263
Total	1645	2554	4199

Chi-square = 116.0953
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 25

DAT Quantative Score by Gender

DATQUANT / SEX

	F	M	Total
-	109	135	244
0	227	289	516
1	320	497	817
2	373	588	961
3	293	475	768
4	174	294	468
5	106	171	277
6&OVER	43	105	148
Total	1645	2554	4199

Chi-square = 15.7502
Degrees of Freedom = 7
Chi-square statistic significant at the 5.0% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 26

DAT Perceptual Average by Gender

DATPAVG / SEX	F	M	Total
-	44	57	101
0	63	110	173
1	273	403	676
2	385	602	987
3	379	584	963
4	265	414	679
5	130	208	338
6&OVER	62	103	165
Total	1601	2481	4082

Chi-square = 2.0603
Degrees of Freedom = 7
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 27

DAT Average by Father's Education

DATAVG / AFED	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	2	0	3	1	0	0	4	0	0	10
0	5	0	0	7	2	5	10	6	3	38
1	57	7	21	35	14	58	44	35	26	297
2	98	14	70	87	40	143	120	90	45	707
3	129	31	54	104	33	145	107	66	46	715
4	97	8	44	59	24	85	53	36	18	424
5	32	10	17	15	6	24	15	5	8	132
6&OVER	9	1	3	5	4	4	5	1	0	32
Total	429	71	212	313	123	464	358	239	146	2355

Chi-square = 100.9575

Degrees of Freedom = 56

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 28

DAT Science Score by Father's Education

DATSCI / AFED	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	18	2	9	12	1	13	23	9	8	95
0	24	4	15	15	12	34	33	30	11	178
1	80	7	38	53	27	79	63	36	28	411
2	89	21	46	87	19	112	69	60	39	542
3	90	13	42	59	23	96	87	46	23	479
4	81	12	30	47	25	75	53	39	20	382
5	25	8	18	24	10	30	15	13	13	156
6&OVER	22	4	14	16	6	25	15	6	4	112
Total	429	71	212	313	123	464	358	239	146	2355

Chi-square = 70.6940

Degrees of Freedom = 56

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 29

DAT Reading Score by Father's Education

DATREAD / AFED	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	17	0	5	11	6	15	14	12	5	85
0	24	5	17	23	10	50	39	27	15	210
1	63	8	31	52	21	83	66	47	28	399
2	95	19	37	67	24	101	78	69	37	527
3	85	16	54	68	23	83	71	42	27	469
4	64	11	37	45	21	67	53	22	15	335
5	50	6	17	26	10	47	22	18	10	206
6&OVER	31	6	14	21	8	18	15	2	9	124
Total	429	71	212	313	123	464	358	239	146	2355

Chi-square = 73.8918

Degrees of Freedom = 56

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 30

DAT Quantitative Score by Father's Education

DATQUANT / AFED

	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	21	1	11	14	5	25	20	19	14	130
0	43	7	15	49	14	53	53	32	18	284
1	66	12	40	50	24	98	76	63	35	464
2	106	10	62	78	35	104	95	55	38	583
3	78	21	39	54	17	100	50	35	20	414
4	60	8	26	28	12	46	37	23	12	252
5	36	8	15	26	11	25	18	10	6	155
6&OVER	19	4	4	14	5	13	9	2	3	73
Total	429	71	212	313	123	464	358	239	146	2355

Chi-square = 93.1218

Degrees of Freedom = 56

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 31

DAT Perceptual Score by Father's Education

DATPAVG / AFED

	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	9	3	6	8	2	15	10	13	11	77
0	9	1	4	13	4	18	24	8	11	92
1	44	10	27	32	26	72	58	56	27	352
2	87	15	40	74	28	90	90	56	43	523
3	107	17	45	70	25	112	74	51	31	532
4	86	11	42	52	13	75	56	27	13	375
5	36	8	20	23	9	38	26	17	4	181
6&OVER	25	3	11	25	9	23	6	3	1	106
Total	403	68	195	297	116	443	344	231	141	2238

Chi-square = 127.0875

Degrees of Freedom = 56

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 32

DAT Average by Mother's Education

DATAVG / AMED	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	1	0	3	3	0	1	2	0	0	10
0	4	3	3	7	0	7	11	3	1	39
1	34	21	36	41	11	79	55	20	8	305
2	97	26	63	109	43	199	116	53	20	726
3	98	55	92	108	45	162	110	54	18	742
4	61	28	56	69	25	107	60	21	13	440
5	23	10	22	24	3	32	10	7	6	137
6&OVER	5	4	6	5	3	7	3	0	0	33
Total	323	147	281	366	130	594	367	158	66	2432

Chi-square = 71.3861

Degrees of Freedom = 56

Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 33

DAT Science Score by Mother's Education

DATSCI / AMED	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	14	5	13	12	2	21	19	8	4	98
0	18	7	14	36	10	40	38	11	6	180
1	62	25	55	61	20	110	60	24	7	424
2	73	40	57	80	32	140	76	39	18	555
3	67	27	59	73	37	115	76	32	12	498
4	51	21	41	67	17	102	61	28	8	396
5	24	12	21	23	8	38	22	9	7	164
6&OVER	14	10	21	14	4	28	15	7	4	117
Total	323	147	281	366	130	594	367	158	66	2432

Chi-square = 47.1033

Degrees of Freedom = 56

Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 34

DAT Reading Score by Mother's Education

DATREAD / AMED

	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	12	3	12	10	3	24	18	6	1	89
0	19	7	14	37	8	64	46	19	5	219
1	36	24	45	63	23	107	64	33	11	406
2	74	30	56	82	33	120	82	53	12	542
3	84	31	54	67	26	113	78	23	16	492
4	46	25	45	55	22	81	47	15	10	346
5	33	17	33	30	9	56	21	9	5	213
6&OVER	19	10	22	22	6	29	11	0	6	125
Total	323	147	281	366	130	594	367	158	66	2432

Chi-square = 94.3556

Degrees of Freedom = 56

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 35

DAT Quantitative Score by Mother's Education

DATQUANT / AMED

	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	12	7	9	21	8	35	27	11	4	134
0	31	18	30	45	11	79	50	16	8	288
1	53	31	46	66	14	133	93	34	16	486
2	96	21	80	87	36	144	81	42	14	601
3	59	30	54	67	35	90	57	27	6	425
4	36	19	31	43	13	55	32	21	11	261
5	24	12	21	26	10	39	19	7	3	161
6&OVER	12	9	10	11	3	19	8	0	4	76
Total	323	147	281	366	130	594	367	158	66	2432

Chi-square = 82.4042

Degrees of Freedom = 56

Chi-square statistic significant at the 5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 36

DAT Perceptual Score by Mother's Education

DATPAVG / AMED

	GRAD DEG	SOME GRAD	COLL DEG	SOME COLL	BUSTECH	HS GRAD	SOME HS	EL ED	SOME EL	Total
-	7	3	11	8	2	16	19	7	4	77
0	6	4	7	16	2	31	18	6	6	96
1	43	15	32	47	18	94	68	34	14	365
2	65	31	51	75	30	138	94	41	16	541
3	69	36	74	85	26	126	83	34	15	548
4	62	26	55	60	19	97	47	16	6	388
5	27	18	22	33	11	45	21	13	2	192
6&OVER	19	11	17	22	6	24	6	1	1	107
Total	298	144	269	346	114	571	356	152	64	2314

Chi-square = 93.8929

Degrees of Freedom = 56

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 37

DAT Average by Father's Occupation

DATAVG / AFOCCODE

	BUS	CLE	DEN	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	3	0	1	1	1	1	1	1	2	11
0	5	2	0	0	6	7	8	1	4	33
1	25	9	17	14	65	49	48	11	53	291
2	96	15	29	17	127	127	110	30	117	668
3	64	18	38	32	125	106	124	38	141	686
4	46	12	34	25	65	63	80	14	73	412
5	18	2	11	8	16	26	25	2	19	127
6&OVER	7	2	1	1	3	3	6	0	8	31
Total	264	60	131	98	408	382	402	97	417	2259

Chi-square = 73.0001
Degrees of Freedom = 56
Chi-square statistic significant at the 10% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 38

DAT Science Score by Father's Occupation

DATSCI / AFOCCODE

	BUS	CLE	DEN	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	8	3	5	5	13	20	20	2	18	94
0	19	7	7	8	30	31	21	8	37	168
1	54	8	15	13	77	75	68	19	70	399
2	57	9	34	17	100	80	88	28	93	506
3	55	18	30	20	75	73	89	20	81	461
4	27	5	24	27	69	60	76	12	71	371
5	25	6	10	4	29	26	22	4	23	149
6&OVER	19	4	6	4	15	17	18	4	24	111
Total	264	60	131	98	408	382	402	97	417	2259

Chi-square = 62.9443
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 39

DAT Reading Score by Father's Occupation

DATREAD / AFOCCODE

	BUS	CLE	DEN	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	9	3	6	4	17	14	16	3	12	84
0	22	4	6	9	51	40	26	11	37	206
1	39	13	22	14	72	65	57	19	82	383
2	71	17	28	20	102	79	89	22	79	507
3	47	11	24	16	74	79	89	21	85	446
4	43	6	22	14	42	55	64	10	64	320
5	15	3	14	13	28	35	39	7	37	191
6&OVER	18	3	9	8	22	15	22	4	21	122
Total	264	60	131	98	408	382	402	97	417	2259

Chi-square = 54.7503
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 40

DAT Quantitative Score by Father's Occupation

DATQUANT / AFOCCODE

	BUS	CLE	DEN	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	11	2	7	4	26	27	23	6	17	123
0	37	7	14	13	54	44	37	11	57	274
1	48	16	15	20	80	93	71	25	74	442
2	62	15	34	21	102	94	93	24	108	553
3	47	13	27	14	73	60	79	18	72	403
4	27	4	20	11	38	35	50	8	49	242
5	21	2	7	12	27	22	34	2	24	151
6&OVER	11	1	7	3	8	7	15	3	16	71
Total	264	60	131	98	408	382	402	97	417	2259

Chi-square = 58.0581
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 41

DAT Perceptual Score by Father's Occupation

DATPAVG / AFOCCODE

	BUS	CLE	DEN	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	11	1	3	1	13	10	16	5	9	69
0	12	2	1	1	20	19	10	3	18	86
1	37	9	12	15	83	62	47	12	59	336
2	54	15	23	27	100	82	96	27	86	510
3	55	13	30	20	95	76	92	24	102	507
4	43	10	27	16	45	68	66	13	70	358
5	18	4	12	9	26	27	32	8	40	176
6&OVER	14	5	9	8	14	13	19	2	19	103
Total	244	59	117	97	396	357	378	94	403	2145

Chi-square = 63.8085
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 42

DAT Average by Mother's Occupation

DATAVG / AMOCCODE	BUS	CLE	DOM	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	0	0	7	1	0	0	3	1	0	12
0	3	2	10	2	1	8	6	3	1	36
1	9	14	97	30	10	32	62	19	16	289
2	27	59	208	62	32	76	154	38	35	691
3	34	69	178	78	31	70	171	46	28	705
4	18	45	114	41	15	36	113	9	19	410
5	9	10	29	17	4	19	30	6	8	132
6&OVER	2	2	5	2	1	3	9	2	1	27
Total	102	201	648	233	94	244	548	124	108	2302

Chi-square = 63.4501
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 43

DAT Science Score by Mother's Occupation

DATSCI / AMOCCODE	BUS	CLE	DOM	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	3	3	38	9	3	11	20	7	1	95
0	5	10	57	24	7	15	31	10	11	170
1	19	38	99	32	16	51	98	28	24	405
2	20	50	158	53	18	48	130	33	20	530
3	26	37	124	48	23	49	115	25	20	467
4	15	42	105	41	15	40	87	10	21	376
5	7	13	34	17	8	20	41	5	8	153
6&OVER	7	8	33	9	4	10	26	6	3	106
Total	102	201	648	233	94	244	548	124	108	2302

Chi-square = 57.4402
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 44

DAT Reading Score by Mother's Occupation

DATREAD / AMOCCODE

	BUS	CLE	DOM	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	1	4	31	7	5	8	20	10	1	87
0	11	16	73	17	11	26	35	8	15	212
1	14	32	106	42	20	52	73	26	19	384
2	25	48	146	44	31	48	121	27	20	510
3	16	39	136	47	8	36	133	19	26	460
4	13	29	80	37	9	43	84	14	15	324
5	16	17	50	24	6	23	51	17	5	209
6&OVER	6	16	26	15	4	8	31	3	7	116
Total	102	201	648	233	94	244	548	124	108	2302

Chi-square = 95.2256
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 45

DAT Quantitative Score by Mother's Occupation

DATQUANT / AMOCCODE

	BUS	CLE	DOM	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	2	11	40	11	5	18	22	9	6	124
0	12	14	91	32	9	26	57	14	20	275
1	15	33	139	34	16	64	103	32	19	455
2	33	51	156	67	27	48	140	30	20	572
3	19	57	98	48	18	38	103	16	13	410
4	6	18	63	25	9	29	65	12	21	248
5	9	12	45	8	8	10	41	8	8	149
6&OVER	6	5	16	8	2	11	17	3	1	69
Total	102	201	648	233	94	244	548	124	108	2302

Chi-square = 93.5946
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 46

DAT Perceptual Score by Mother's Occupation

DATPAVG / AMOCCODE

	BUS	CLE	DOM	HEA	LAB	OTH	PRO	SAL	TEC	Total
-	4	3	30	4	2	6	13	5	3	70
0	3	7	28	13	4	8	14	6	3	86
1	15	21	108	27	22	38	69	26	20	346
2	23	43	159	44	21	58	114	25	22	509
3	21	55	137	53	21	52	133	27	24	523
4	15	36	94	39	11	37	106	17	14	369
5	6	15	47	28	8	20	43	11	9	187
6&OVER	7	10	22	9	1	11	27	5	6	98
Total	94	190	625	217	90	230	519	122	101	2188

Chi-square = 59.3771
Degrees of Freedom = 56
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 47

DAT Average by Parents' Income

DATAVG / CPARINC

	0-9.9K	10-19.9K	20-29.9K	30-39.9K	40-49.9K	50-59.9K	60K&OVER	Total
-	18	15	10	7	9	3	2	64
0	33	41	37	18	16	8	18	171
1	72	95	74	67	28	20	35	391
2	111	133	110	81	63	31	41	570
3	83	128	107	73	49	44	48	532
4	43	67	58	37	32	24	32	293
5	12	27	32	22	11	9	14	127
6&OVER	6	12	7	8	9	8	9	59
Total	378	518	435	313	217	147	199	2207

Chi-square = 54.7111

Degrees of Freedom = 42

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 48

DAT Science Score by Parents' Income

DATSCI / CPARINC	0-9.9K	10-19.9K	20-29.9K	30-39.9K	40-49.9K	50-59.9K	60K&OVER	Total
-	29	34	30	11	12	6	10	132
0	47	54	44	24	19	10	12	210
1	63	91	58	54	28	21	37	352
2	81	123	107	70	61	33	35	510
3	69	89	73	67	35	31	36	400
4	47	67	58	46	22	17	33	290
5	25	39	42	22	22	17	25	192
6&OVER	17	21	23	19	18	12	11	121
Total	378	518	435	313	217	147	199	2207

Chi-square = 53.1148

Degrees of Freedom = 42

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 49

DAT Reading Score by Parents' Income

DATREAD / CPARINC	0-9.9K	10-19.9K	20-29.9K	30-39.9K	40-49.9K	50-59.9K	60K&OVER	Total
-	24	24	19	11	7	5	5	95
0	38	48	36	21	12	6	14	175
1	72	87	49	40	20	24	19	311
2	81	114	94	67	50	24	39	469
3	70	89	95	64	46	29	42	435
4	43	74	72	52	31	23	39	334
5	32	47	43	38	30	14	27	231
6&OVER	18	35	27	20	21	22	14	157
Total	378	518	435	313	217	147	199	2207

Chi-square = 73.9826

Degrees of Freedom = 42

Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 50

DAT Quantitative Score by Parents' Income

DATQUANT / CPARINC	0-9.9K	10-19.9K	20-29.9K	30-39.9K	40-49.9K	50-59.9K	60K&OVER	Total
-	41	43	13	16	11	10	11	145
0	47	64	57	35	25	15	27	270
1	77	106	84	54	30	23	31	405
2	80	115	100	68	48	28	30	469
3	64	96	83	75	46	32	43	439
4	46	51	53	37	32	17	29	265
5	11	30	31	17	12	15	15	131
6&OVER	12	13	14	11	13	7	13	83
Total	378	518	435	313	217	147	199	2207

Chi-square = 68.9708

Degrees of Freedom = 42

Chi-square statistic significant at the 5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 51

DAT Perceptual Score by Parents' Income

DATPAVG / CPARINC	0-9.9K	10-19.9K	20-29.9K	30-39.9K	40-49.9K	50-59.9K	60K&OVER	Total
-	5	7	4	4	0	0	0	20
0	19	23	13	10	5	2	2	74
1	67	82	57	29	21	17	17	290
2	66	106	70	59	43	27	38	409
3	58	72	96	60	42	33	43	404
4	40	60	56	44	25	18	36	279
5	21	25	23	21	21	16	16	143
6&OVER	5	12	9	11	6	5	7	55
Total	281	387	328	238	163	118	159	1674

Chi-square = 75.5583

Degrees of Freedom = 42

Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 52

DAT Average by Size of Applicant's Permanent Residence

DATAVG / CPERMRES

	0-2.5K & Farm	2.5-25K	25-100K	100K-1M	OVER1M	Total
-	8	18	15	18	10	69
0	17	45	34	50	35	181
1	36	102	100	94	77	409
2	57	122	132	153	122	586
3	48	109	118	132	141	548
4	15	55	75	88	68	301
5	8	26	23	29	41	127
6&OVER	5	6	16	13	24	64
Total	194	483	513	577	518	2285

Chi-square = 46.5675
Degrees of Freedom = 28
Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 53

DAT Science Score by Size of Applicant's Permanent Residence

DATSCI / CPERMRES

	0-2.5K & Farm	2.5-25K	25-100K	100K-1M	OVER1M	Total
-	12	25	27	49	25	138
0	17	58	52	53	41	221
1	42	83	71	92	78	366
2	43	121	133	113	114	524
3	34	75	95	120	90	414
4	19	51	71	76	85	302
5	17	41	37	44	58	197
6&OVER	10	29	27	30	27	123
Total	194	483	513	577	518	2285

Chi-square = 44.0608
Degrees of Freedom = 28
Chi-square statistic significant at the 5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 54

DAT Reading Score by Size of Applicant's Permanent Residence

DATREAD / CPERMRES	0-2.5K & Farm	2.5-25K	25-100K	100K-1M	OVER1M	Total
-	12	23	23	23	18	99
0	12	51	46	43	31	183
1	30	74	66	86	66	322
2	39	88	128	119	115	489
3	40	93	104	123	98	458
4	35	72	62	79	94	342
5	15	59	45	59	58	236
6&OVER	11	23	39	45	38	156
Total	194	483	513	577	518	2285

Chi-square = 37.5898
Degrees of Freedom = 28
Chi-square statistic significant at the 10% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 55

DAT Quantitative Score by Size of Applicant's Permanent Residence

DATQUANT / CPERMRES	0-2.5K & Farm	2.5-25K	25-100K	100K-1M	OVER1M	Total
-	17	39	29	39	25	149
0	27	53	74	69	54	277
1	40	89	86	115	93	423
2	34	109	111	120	119	493
3	32	95	115	96	112	450
4	29	49	56	80	57	271
5	8	33	26	33	35	135
6&OVER	7	16	16	25	23	87
Total	194	483	513	577	518	2285

Chi-square = 32.1202
Degrees of Freedom = 28
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 56

DAT Perceptual Score by Size of Applicant's Permanent Residence

DATPAVG / CPERMRES

	0-2.5K & Farm	2.5-25K	25-100K	100K-1M	OVER1M	Total
-	2	7	6	5	4	24
0	4	19	15	17	18	73
1	36	69	69	66	61	301
2	47	95	98	109	81	430
3	24	88	97	109	94	412
4	25	50	59	67	84	285
5	9	30	29	39	37	144
6&OVER	2	14	15	14	13	58
Total	149	372	388	426	392	1727

Chi-square = 32.0330
Degrees of Freedom = 28
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 57

DAT Average by Applicant's High School Rank

DATAVG / CHSR

	0-40	41-60	61-80	81-100	Total
-	8	12	15	34	69
0	13	11	59	92	175
1	15	58	106	224	403
2	26	64	176	319	585
3	30	72	145	300	547
4	11	25	88	176	300
5	2	11	34	77	124
6&OVER	3	7	10	42	62
Total	108	260	633	1264	2265

Chi-square = 40.4750
Degrees of Freedom = 21
Chi-square statistic significant at the 1.0% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 58

DAT Science Score by Applicant's High School Rank

DATSCI / CHSR

	0-40	41-60	61-80	81-100	Total
-	14	25	43	56	138
0	18	29	50	121	218
1	12	53	101	196	362
2	20	52	164	288	524
3	23	57	111	215	406
4	15	25	78	180	298
5	2	15	58	122	197
6&OVER	4	4	28	86	122
Total	108	260	633	1264	2265

Chi-square = 68.2867
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 59

DAT Reading Score by Applicant's High School Rank

DATREAD / CHSR

	0-40	41-60	61-80	81-100	Total
-	8	15	29	47	99
0	7	38	53	81	179
1	26	49	100	140	315
2	17	51	143	272	483
3	23	40	130	262	455
4	17	27	90	208	342
5	8	27	56	144	235
6&OVER	2	13	32	110	157
Total	108	260	633	1264	2265

Chi-square = 74.4625
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 60

DAT Quantitative Score by Applicant's High School Rank

DATQUANT / CHSR	0-40	41-60	61-80	81-100	Total
-	9	24	45	70	148
0	17	53	68	134	272
1	28	48	114	230	420
2	26	59	169	235	489
3	18	41	131	259	449
4	8	24	71	164	267
5	2	8	22	102	134
6&OVER	0	3	13	70	86
Total	108	260	633	1264	2265

Chi-square = 96.7562
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 61

DAT Perceptual Score by Applicant's High School Rank

DATPAVG / CHSR	0-40	41-60	61-80	81-100	Total
-	2	0	8	14	24
0	4	11	22	35	72
1	20	49	75	151	295
2	19	54	114	234	421
3	20	38	129	222	409
4	4	32	64	182	282
5	2	10	36	95	143
6&OVER	1	3	11	43	58
Total	72	197	459	976	1704

Chi-square = 51.2166
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 62

DAT Average by Undergraduate Major

DATAVG / AMAJOR

	DENTAL	HLTH	HUMAN	NTSCI	OTHER	SOCSCI	Total
-	3	0	1	6	1	1	12
0	5	3	1	26	2	2	39
1	24	24	6	222	15	17	308
2	48	55	45	505	24	55	732
3	46	49	30	534	37	53	749
4	26	22	20	308	21	44	441
5	8	4	7	103	7	9	138
6&OVER	1	2	2	21	2	4	32
Total	161	159	112	1725	109	185	2451

Chi-square = 39.9657
Degrees of Freedom = 35
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 63

DAT Science Score by Undergraduate Major

DATSCI / AMAJOR

	DENTAL	HLTH	HUMAN	NTSCI	OTHER	SOCSCI	Total
-	13	8	5	58	5	11	100
0	15	19	7	117	10	14	182
1	30	26	25	300	19	29	429
2	36	46	25	388	26	37	558
3	33	36	23	352	14	45	503
4	19	18	15	297	20	29	398
5	12	3	7	120	11	12	165
6&OVER	3	3	5	93	4	8	116
Total	161	159	112	1725	109	185	2451

Chi-square = 48.9474
Degrees of Freedom = 35
Chi-square statistic significant at the 5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 64

DAT Reading Score by Undergraduate Major

DATREAD / AMAJOR

	DENTAL	HLTH	HUMAN	NTSCI	OTHER	SOCSCI	Total
-	7	5	5	63	7	6	93
0	20	16	9	145	14	16	220
1	23	22	13	319	14	21	412
2	30	34	28	376	28	50	546
3	35	32	21	352	15	37	492
4	24	29	14	234	19	29	349
5	14	13	12	159	5	11	214
6&OVER	8	8	10	77	7	15	125
Total	161	159	112	1725	109	185	2451

Chi-square = 41.3615
Degrees of Freedom = 35
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 65

DAT Quantitative Score by Undergraduate Major

DATQUANT / AMAJOR

	DENTAL	HLTH	HUMAN	NTSCI	OTHER	SOCSCI	Total
-	12	12	2	100	3	7	136
0	31	15	16	190	15	27	294
1	26	43	27	337	23	35	491
2	31	41	32	438	16	45	603
3	36	25	15	298	25	30	429
4	16	10	11	192	12	20	261
5	8	10	8	119	7	10	162
6&OVER	1	3	1	51	8	11	75
Total	161	159	112	1725	109	185	2451

Chi-square = 60.4027
Degrees of Freedom = 35
Chi-square statistic significant at the 1.0% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 66

DAT Perceptual Score by Undergraduate Major

DATPAVG / AMAJOR

	DENTAL	HLTH	HUMAN	NTSCI	OTHER	SOCSCI	Total
-	4	4	3	62	2	2	77
0	6	6	5	69	5	5	96
1	21	34	14	263	12	26	370
2	45	32	22	380	32	40	551
3	32	33	23	398	19	43	548
4	25	25	16	264	19	40	389
5	11	7	13	138	12	15	196
6&OVER	8	7	9	72	5	6	107
Total	152	148	105	1646	106	177	2334

Chi-square = 34.7397
Degrees of Freedom = 35
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 67

DAT Average by Years of College Completed

DATAVG / AYRSCOL

	3&UNDER	4	5	6	Total
-	0	5	1	3	9
0	4	13	4	11	32
1	23	89	64	92	268
2	46	261	112	190	609
3	60	288	116	171	635
4	51	172	48	94	365
5	25	49	14	28	116
6&OVER	7	12	0	5	24
Total	216	889	359	594	2058

Chi-square = 67.5625
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 68

DAT Science Score by Years of College Completed

DATSCI / AYRSCOL

	3&UNDER	4	5	6	Total
-	10	22	18	31	81
0	9	48	33	67	157
1	28	146	72	114	360
2	38	222	81	133	474
3	33	200	70	116	419
4	47	145	57	84	333
5	26	65	15	31	137
6&OVER	25	41	13	18	97
Total	216	889	359	594	2058

Chi-square = 91.1253
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 69

DAT Reading Score by Years of College Completed

DATREAD / AYRSCOL

	3&UNDER	4	5	6	Total
-	6	25	19	25	75
0	16	73	35	61	185
1	37	153	72	100	362
2	36	204	83	141	464
3	44	190	72	104	410
4	41	125	43	85	294
5	18	84	26	50	178
6&OVER	18	35	9	28	90
Total	216	889	359	594	2058

Chi-square = 33.2711
Degrees of Freedom = 21
Chi-square statistic significant at the 5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 70

DAT Quantitative Score by Years of College Completed

DATQUANT / AYRSCOL

	3&UNDER	4	5	6	Total
-	11	54	15	33	113
0	19	93	47	89	248
1	29	177	85	137	428
2	55	205	110	144	514
3	41	155	42	102	340
4	28	112	31	40	211
5	23	61	22	30	136
6&OVER	10	32	7	19	68
Total	216	889	359	594	2058

Chi-square = 56.9929
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 71

DAT Perceptual Score by Years of College Completed

DATPAVG / AYRSCOL

	3&UNDER	4	5	6	Total
-	1	34	14	22	71
0	3	34	24	24	85
1	33	111	64	114	322
2	45	229	83	139	496
3	59	186	83	147	475
4	41	164	45	86	336
5	23	78	31	37	169
6&OVER	9	49	11	18	87
Total	214	885	355	587	2041

Chi-square = 53.3226
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 72

DAT Average by Hours of College Education Completed

DATAVG / CEDHRS

	0-60	61-90	91-120	BAC DEG	ADV DEG	Total
-	10	9	28	18	5	70
0	20	16	65	65	12	178
1	43	59	118	155	30	405
2	58	81	184	230	28	581
3	43	99	178	210	21	551
4	16	59	98	112	14	299
5	11	25	49	40	2	127
6&OVER	7	14	17	23	1	62
Total	208	362	737	853	113	2273

Chi-square = 47.9035
Degrees of Freedom = 28
Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 73

DAT Science Score by Hours of College Education Completed

DATSCI / CEDHRS

	0-60	61-90	91-120	BAC DEG	ADV DEG	Total
-	25	14	34	53	13	139
0	32	32	67	73	17	221
1	36	47	111	146	25	365
2	53	80	163	196	28	520
3	26	62	155	159	10	412
4	13	56	102	117	11	299
5	10	46	69	62	7	194
6&OVER	13	25	36	47	2	123
Total	208	362	737	853	113	2273

Chi-square = 83.7851
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 74

DAT Reading Score by Hours of College Education Completed

DATREAD / CEDHRS

	0-60	61-90	91-120	BAC DEG	ADV DEG	Total
-	14	12	30	36	7	99
0	22	30	47	73	7	179
1	34	53	97	113	22	319
2	47	70	171	172	26	486
3	41	77	148	173	18	457
4	22	53	114	132	19	340
5	17	33	82	100	5	237
6&OVER	11	34	48	54	9	156
Total	208	362	737	853	113	2273

Chi-square = 32.9604
Degrees of Freedom = 28
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 75

DAT Quantitative Score by Hours of College Education Completed

DATQUANT / CEDHRS

	0-60	61-90	91-120	BAC DEG	ADV DEG	Total
-	20	20	36	67	8	151
0	38	27	92	102	19	278
1	36	66	132	154	31	419
2	38	63	179	184	23	487
3	39	80	141	174	14	448
4	21	59	80	98	12	270
5	7	27	48	49	4	135
6&OVER	9	20	29	25	2	85
Total	208	362	737	853	113	2273

Chi-square = 58.9180
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 76

DAT Perceptual Score by Hours of College Education Completed

DATPAVG / CEDHRS

	0-60	61-90	91-120	BAC DEG	ADV DEG	Total
-	7	5	4	6	1	23
0	9	7	25	25	8	74
1	34	32	98	119	19	302
2	47	66	122	162	30	427
3	26	55	156	156	15	408
4	19	57	92	105	9	282
5	10	33	44	53	3	143
6&OVER	5	13	18	19	3	58
Total	157	268	559	645	88	1717

Chi-square = 64.8057
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 77

DAT Average by Undergraduate College Region

DATAVG / UGSTATE

	ENC	ESC	MA	MTN	NE	PAC	SA	WNC	WSC	Total
-	4	9	3	0	0	0	13	1	6	36
0	17	28	9	0	0	3	51	1	17	126
1	80	153	51	5	13	38	256	16	102	714
2	217	233	113	5	30	84	473	38	149	1342
3	236	139	136	12	31	105	363	47	87	1156
4	118	50	107	7	35	86	147	26	38	614
5	39	9	39	1	14	36	42	5	12	197
6&OVER	13	0	8	0	5	7	8	1	1	43
Total	724	621	466	30	128	359	1353	135	412	4228

Chi-square = 380.2589
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 78

DAT Science Score by Undergraduate College Region

DATSCI / UGSTATE	ENC	ESC	MA	MTN	NE	PAC	SA	WNC	WSC	Total
-	39	52	14	1	2	10	88	5	39	250
0	47	88	35	4	14	23	160	16	64	451
1	108	152	71	4	18	41	285	25	94	798
2	168	156	95	5	17	66	357	26	85	975
3	162	99	93	6	27	75	243	28	68	801
4	107	49	83	7	29	66	145	19	44	549
5	62	13	45	2	8	48	48	13	15	254
6&OVER	31	12	30	1	13	30	27	3	3	150
Total	724	621	466	30	128	359	1353	135	412	4228

Chi-square = 356.6535
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 79

DAT Reading Score by Undergraduate College Region

DATREAD / UGSTATE	ENC	ESC	MA	MTN	NE	PAC	SA	WNC	WSC	Total
-	32	39	17	1	4	7	73	4	25	202
0	75	98	43	0	13	26	152	8	45	460
1	117	115	61	4	18	52	259	23	95	744
2	153	158	98	7	14	84	313	32	91	950
3	132	112	103	8	29	72	268	21	67	812
4	108	56	71	8	20	62	153	26	59	563
5	65	33	44	1	12	38	81	13	22	309
6&OVER	42	10	29	1	18	18	54	8	8	188
Total	724	621	466	30	128	359	1353	135	412	4228

Chi-square = 180.2156
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 80

DAT Quantitative Score by Undergraduate College Region

DATQUANT / UGSTATE	ENC	ESC	MA	MTN	NE	PAC	SA	WNC	WSC	Total
-	41	64	31	1	5	17	107	10	40	316
0	95	108	47	4	10	39	199	14	62	578
1	139	138	82	6	27	63	305	27	115	902
2	172	148	102	8	26	72	333	31	82	974
3	126	88	93	7	26	63	221	26	65	715
4	68	50	58	1	18	61	113	19	29	417
5	56	18	29	2	10	27	56	8	11	217
6&OVER	27	7	24	1	6	17	19	0	8	109
Total	724	621	466	30	128	359	1353	135	412	4228

Chi-square = 176.6819
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 81

DAT Perceptual Score by Undergraduate College Region

DATPAVG / UGSTATE	ENC	ESC	MA	MTN	NE	PAC	SA	WNC	WSC	Total
-	27	57	13	2	4	8	66	3	23	203
0	26	36	19	0	7	11	84	6	28	217
1	104	120	72	3	11	41	232	27	84	694
2	159	149	84	7	21	61	311	26	93	911
3	135	99	71	5	26	82	265	31	74	788
4	106	49	79	7	25	59	153	13	39	530
5	55	29	30	2	12	39	55	9	17	248
6&OVER	24	10	20	4	10	33	19	2	3	125
Total	636	549	388	30	116	334	1185	117	361	3716

Chi-square = 254.3160
Degrees of Freedom = 56
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 82

DAT Average by Cumulative College Grade Point Average

DATAVG / CCCGPA	1.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	19	34	15	3	71
0	56	86	35	3	180
1	111	205	80	10	406
2	151	296	116	20	583
3	135	258	131	26	550
4	69	141	72	14	296
5	32	62	24	10	128
6&OVER	11	29	18	4	62
Total	584	1111	491	90	2276

Chi-square = 24.6682
Degrees of Freedom = 21
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 83

DAT Science Score by Cumulative College Grade Point Average

DATSCI / CCCGPA	1.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	50	68	18	5	141
0	81	107	32	2	222
1	106	171	76	12	365
2	133	275	106	10	524
3	100	224	75	15	414
4	65	137	85	11	298
5	43	87	54	10	194
6&OVER	6	42	45	25	118
Total	584	1111	491	90	2276

Chi-square = 188.1286
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 84

DAT Reading Score by Cumulative College Grade Point Average

DATREAD / CCCGPA

	1.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	34	43	19	5	101
0	48	84	40	8	180
1	108	154	52	8	322
2	146	231	93	19	489
3	113	234	93	17	457
4	68	176	85	10	339
5	46	109	68	10	233
6&OVER	21	80	41	13	155
Total	584	1111	491	90	2276

Chi-square = 60.3192
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 85

DAT Quantitative Score by Cumulative College Grade Point Average

DATQUANT / CCCGPA

	1.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	56	73	23	2	154
0	89	132	48	9	278
1	112	228	71	10	421
2	134	240	105	12	491
3	102	226	108	14	450
4	49	120	79	18	266
5	29	58	33	12	132
6&OVER	13	34	24	13	84
Total	584	1111	491	90	2276

Chi-square = 102.0000
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 86

DAT Perceptual Score by Cumulative College Grade Point Average

DATPAVG / CCCGPA

	1.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	8	13	3	0	24
0	26	30	18	2	76
1	104	139	48	8	299
2	117	214	83	16	430
3	95	223	79	11	408
4	62	127	85	7	281
5	22	62	46	12	142
6&OVER	4	20	18	13	55
Total	438	828	380	69	1715

Chi-square = 128.8829
Degrees of Freedom = 21
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 87

DAT Average by College Science Grade Point Average

DATAVG / CCSGPA

	1.0-1.9	2.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	4	23	30	20	3	80
0	13	76	78	45	6	218
1	64	258	232	116	15	685
2	133	508	394	195	38	1268
3	121	517	397	204	33	1272
4	62	259	228	133	39	721
5	14	89	76	56	21	256
6&OVER	1	20	41	26	6	94
Total	412	1750	1476	795	161	4594

Chi-square = 90.5773
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 88

DAT Science Score by College Science Grade Point Average

DATSCI / CCSGPA

	1.0-1.9	2.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	32	91	74	33	6	236
0	46	165	137	37	1	386
1	76	304	239	123	18	760
2	95	434	333	173	22	1057
3	82	342	297	153	23	897
4	58	249	216	123	33	679
5	16	113	116	81	24	350
6&OVER	7	52	64	72	34	229
Total	412	1750	1476	795	161	4594

Chi-square = 224.9419
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 89

DAT Reading Score by College Science Grade Point Average

DATREAD / CCSGPA

	1.0-1.9	2.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	17	85	48	25	10	185
0	44	151	124	63	6	388
1	71	269	247	102	22	711
2	89	411	307	166	28	1001
3	76	360	281	176	30	923
4	53	235	244	110	34	676
5	44	143	130	99	18	434
6&OVER	18	96	95	54	13	276
Total	412	1750	1476	795	161	4594

Chi-square = 58.6668
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 90

DAT Quantitative Score by College Science Grade Point Average

DATQUANT / CCSGPA	1.0-1.9	2.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	24	116	90	43	7	280
0	73	223	157	75	20	548
1	91	349	282	139	17	878
2	86	420	354	182	26	1068
3	79	310	298	152	23	862
4	37	183	161	108	27	516
5	13	99	97	59	18	286
6&OVER	9	50	37	37	23	156
Total	412	1750	1476	795	161	4594

Chi-square = 134.1252
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 91

DAT Perceptual Score by College Science Grade Point Average

DATPAVG / CCSGPA	1.0-1.9	2.0-2.5	2.6-3.0	3.0-3.5	3.6-4.0	Total
-	8	38	29	18	0	93
0	11	62	50	29	6	158
1	70	266	188	105	16	645
2	94	352	305	175	30	956
3	102	370	299	136	26	933
4	47	146	212	127	20	552
5	24	122	97	61	23	327
6&OVER	19	48	39	32	17	155
Total	375	1404	1219	683	138	3819

Chi-square = 100.1627
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 92

DAT Average by Non-science Grade Point Average

DATAVG / ANSGPA	1.0-1.99	2.0-2.59	2.6-2.99	3.0-3.59	3.6-4.00	Total
-	1	4	4	1	0	10
0	3	18	8	8	1	38
1	8	94	84	85	10	281
2	12	209	218	211	36	686
3	14	166	219	277	42	718
4	4	66	119	184	51	424
5	0	18	35	57	21	131
6&OVER	0	5	4	13	10	32
Total	42	580	691	836	171	2320

Chi-square = 159.4579
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 93

DAT Science Score by Non-science Grade Point Average

DATSCI / ANSGPA	1.0-1.99	2.0-2.59	2.6-2.99	3.0-3.59	3.6-4.00	Total
-	4	41	24	25	1	95
0	8	59	49	43	7	166
1	3	116	128	127	21	395
2	12	141	177	180	24	534
3	8	117	127	191	37	480
4	4	64	118	154	40	380
5	2	25	46	68	18	159
6&OVER	1	17	22	48	23	111
Total	42	580	691	836	171	2320

Chi-square = 137.1601
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 94

DAT Reading Score by Non-science Grade Point Average

DATREAD / ANSGPA

	1.0-1.99	2.0-2.59	2.6-2.99	3.0-3.59	3.6-4.00	Total
-	5	37	22	16	4	84
0	3	63	66	67	10	209
1	9	113	122	129	17	390
2	10	145	148	179	29	511
3	9	99	129	198	33	468
4	1	66	106	117	43	333
5	3	36	69	77	18	203
6&OVER	2	21	29	53	17	122
Total	42	580	691	836	171	2320

Chi-square = 97.9368
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 95

DAT Quantitative Score by Non-science Grade Point Average

DATQUANT / ANSGPA

	1.0-1.99	2.0-2.59	2.6-2.99	3.0-3.59	3.6-4.00	Total
-	2	47	32	41	5	127
0	7	92	81	78	13	271
1	11	135	131	156	25	458
2	11	127	187	207	41	573
3	9	92	120	156	36	413
4	2	44	75	106	21	248
5	0	32	43	59	21	155
6&OVER	0	11	22	33	9	75
Total	42	580	691	836	171	2320

Chi-square = 71.3384
Degrees of Freedom = 28
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 96

DAT Perceptual Score by Non-science Grade Point Average

DATPAVG / ANSGPA	1.0-1.99	2.0-2.59	2.6-2.99	3.0-3.59	3.6-4.00	Total
-	1	22	17	26	3	69
0	0	24	20	36	3	83
1	5	101	104	109	25	344
2	12	125	150	199	36	522
3	10	131	164	177	44	526
4	7	80	104	157	23	371
5	4	35	64	61	22	186
6&OVER	0	20	33	39	9	101
Total	39	538	656	804	165	2202

Chi-square = 37.1635
Degrees of Freedom = 28
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 97

DAT Average by Applicant's Age

DATAVG / AGEDAT	17-20	21	22	23	24	25	26-30	31&OVER	Total
-	3	10	2	1	2	2	8	10	38
0	1	15	25	19	11	4	33	36	144
1	27	118	106	85	71	55	203	128	793
2	63	229	230	169	138	97	347	169	1442
3	67	233	189	139	106	97	281	124	1236
4	54	157	107	59	61	53	114	49	654
5	28	55	38	10	15	18	39	6	209
6&OVER	11	11	6	5	6	4	3	2	48
Total	254	828	703	487	410	330	1028	524	4564

Chi-square = 232.5303
Degrees of Freedom = 49
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 98

DAT Science Score by Applicant's Age

DATSCI / AGEDAT	17-20	21	22	23	24	25	26-30	31&OVER	Total
-	12	36	32	22	18	20	73	63	276
0	16	72	66	64	42	28	125	90	503
1	35	138	135	93	83	75	206	99	864
2	49	188	172	126	102	51	228	125	1041
3	52	160	141	86	68	80	194	76	857
4	39	132	86	65	60	45	120	43	590
5	26	67	46	21	20	19	55	18	272
6&OVER	25	35	25	10	17	12	27	10	161
Total	254	828	703	487	410	330	1028	524	4564

Chi-square = 195.6558
Degrees of Freedom = 49
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 99

DAT Reading Score by Applicant's Age

DATREAD / AGEDAT	17-20	21	22	23	24	25	26-30	31&OVER	Total
-	7	40	29	23	18	12	62	39	230
0	16	73	68	50	42	33	128	94	504
1	37	106	120	97	90	52	191	115	808
2	43	193	152	123	92	77	241	111	1032
3	69	180	136	84	67	63	181	80	860
4	46	105	108	60	60	44	125	51	599
5	16	84	60	32	24	26	68	22	332
6&OVER	20	47	30	18	17	23	32	12	199
Total	254	828	703	487	410	330	1028	524	4564

Chi-square = 158.9886
Degrees of Freedom = 49
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 100

DAT Quantitative Score by Applicant's Age

DATQUANT / AGEDAT	17-20	21	22	23	24	25	26-30	31&OVER	Total
-	8	57	37	39	34	25	93	58	351
0	17	78	84	75	67	41	172	94	628
1	31	160	154	98	77	71	246	131	968
2	51	176	175	134	102	76	231	105	1050
3	60	168	133	74	49	48	149	82	763
4	42	101	65	40	49	42	84	31	454
5	29	58	36	15	23	19	33	17	230
6&OVER	16	30	19	12	9	8	20	6	120
Total	254	828	703	487	410	330	1028	524	4564

Chi-square = 215.6927
Degrees of Freedom = 49
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 101

DAT Perceptual Score by Applicant's Age

DATPAVG / AGEDAT	17-20	21	22	23	24	25	26-30	31&OVER	Total
-	3	38	28	21	15	17	58	37	217
0	9	43	34	23	24	17	52	41	243
1	32	117	108	85	72	60	175	108	757
2	58	157	146	113	94	57	243	118	986
3	40	152	132	87	76	63	192	98	840
4	43	123	85	53	50	40	109	46	549
5	27	56	53	26	13	24	56	19	274
6&OVER	17	25	23	20	15	8	23	4	135
Total	229	711	609	428	359	286	908	471	4001

Chi-square = 113.3470
Degrees of Freedom = 49
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

IV. BLACKS ENTERING DENTAL SCHOOL: 1973-1981

As has been previously noted, the data set had to be reduced from the 1973 through 1985 span to the 1973 through 1981 (or 1976 through 1985 graduates) span for the second phase of this study. Of the 4,572 blacks who took the DAT between 1973 and 1981, 1,858 (or 40.6%) were found to have enrolled in dental school (Table 102).

There were no readily available data on the number of blacks who applied to dental school between 1973 and 1981. The previous section examined all blacks taking the DAT between 1973 and 1985, and this section examines the blacks found to enroll in dental school between 1973 and 1981. However, there were no data readily available concerning the number of blacks who took the DAT and did not apply to dental school or who took the DAT and applied, but were not accepted. Thus, this section contrasts the blacks who did enroll with those who did not enroll, but no inferences should be made about the number of blacks applying to dental school during this time.

Tables 103 through 123 examine the differences and/or similarities between those enrolling in dental school and those not enrolling across the same characteristics studied in Section III. (Again contingency tables are used. These tables produce a statistic which follows a X^2 distribution with the appropriate degrees of freedom. If the statistic is significant, then one can conclude, with a given level of confidence, that the characteristic is distributed differently across the two groups——those enrolling and those not enrolling.)

Tables 103 through 107 present the DAT scores by enrollment status. In every case, the X^2 statistic is significant at the 0.5% level. These results are not surprising since the DAT scores are used by the dental schools to evaluate applicants. It is interesting to note that the percentage of applicants enrolled increases with DAT score. From Table 103, only 24.7% of blacks with a 2 or below DAT average score enrolled. Some 58.5% of blacks with a DAT average score of 3 or above enrolled. Table 104 presents enrollment figures by DAT science score. Interestingly, the trend toward larger percentage enrollments with higher scores is not as steep as is presented in Table 103 with the overall DAT score. A total of 40.5% of blacks with a DAT science score of 2 or below, and 57.7% of those who scored 3 or above on the DAT science average enrolled. Table 105 presents enrollment figures by DAT reading score; as with the science score, blacks with higher scores are more likely to enroll. About 31% of blacks with a score of 2 or below enrolled, and 52.7% of those with a reading score of 3 or above enrolled.

The quantitative score, presented in Table 106, is also related to the percentage of enrolled in that those with higher scores were more likely to be enrolled. Slightly over 34% of blacks with a score of 2 or below enrolled, and 53% of those with a score of 3 or more enrolled. Perceptual scores, presented in Table 107 are also related to enrollment, and the relation appears to be among the strongest. Only 29.7% of blacks with a score of 2 or below enrolled, and slightly more than 64% of those with a score of 3 or more enrolled. The overall DAT average (Table 103), and the DAT perceptual average (Table 107) appear to have the strongest relations to enrollment.

The enrollment distribution appears to vary by gender (Table 108) and by each parent's educational attainment (Tables 109 and 110). The X^2 for each parent's education is significant at the 0.5% level, while it is significant at the 2.5% for the table by gender. It is interesting to note that almost 60% of black females who took the DAT enrolled in dental school and 55% of black males who took the DAT enrolled in dental school. Father's education appears to be related to enrollment in that the higher level of attained education is associated with a higher percentage enrollment. Almost 69% of black applicants with fathers with a graduate degree enrolled whereas 50% of black applicants with fathers with only some elementary school education enrolled. The relation between enrollment and mother's education is not as clear. Slightly more than 64% of blacks with mothers attaining a graduate degree enrolled; whereas, slightly less than 58% of blacks with mothers attaining only some elementary school education enrolled. Interestingly, over 70% of blacks enrolled whose mothers had attained some graduate school training, without the graduate degree, and only 51% of blacks with mothers who completed only elementary school enrolled.

The applicant's parents' occupations also appear to be distributed differently among the blacks who enrolled in dental school and those who did not (Tables 111 and 112). However, there is no significant difference in the distributions across the parent's income, the size of the applicant's permanent residence or the applicant's rank in his/her high school class (Tables 113, 114 and 115). The father's occupation that is most closely tied to enrollment success is the dental related occupation. A total of 74% of blacks who applied with a father in a dental related occupation enrolled. The second highest percentage occupational category is "Professional" with 63%. From Table 112 specifying the mother's occupation, no single category has a percentage as high as the 74% from Table 111.

The X^2 statistic for the enrollment status by undergraduate major is significant at the 0.5% level (Table 116). The largest percentage enrolled with respect to undergraduate major (64.6%) is among those with dental related undergraduate majors. Those majoring in the natural sciences, with 60.9% enrolled represents the second largest percentage enrolled.

Table 117 presents a statistically significant X^2 for the enrollment status by years of college completed. The pattern of enrollment percentages reveals a clear trend. The largest percentages enrolled are among those groups with the fewest years of college completed. Those with 3 years and under are among those with the largest percentage enrolled (72.2%). Only 51.0% of those with 6 years of college completed enrolled in dental school. This decline could reflect the shrinking applicant pool.

There does not appear to be a significant difference in the distribution of the number of college credit hours completed across the two enrollment classes (Table 118). (Again it should be noted that the years of college completed is taken from the 1973 through 1979 surveys, and the hours completed comes from the 1980 through 1981 surveys.) The distribution of the two enrollment classes appears to be significantly different across the region in which the undergraduate institution is located (Table 119). The largest percentage enrolled is among those attending undergraduate schools in the New England region with 53.1%. The smallest percentage enrolled is among those attending undergraduate schools in the West South Central region with 31.6%.

The distribution of each of the grade point averages (GPAs) examined——cumulative, science, and non-science——is significantly different (0.5% level) across the enrolled versus non-enrolled applicants (Tables 120 through 122). This is not surprising since the GPA is another value the schools examine when considering applicants. From Table 120 the percentage enrolled remains relatively constant at grade point averages above 2.6 (30.1%, 32.4%, and 31.1%). Only 16.8% of black applicants with grade point averages ranging from 1.0 to 2.5 enrolled.

Grade point averages among science courses in Table 121 show a much stronger trend those found in Table 120 presenting overall grade point averages. A total of 30.0% of applicants with science grade point averages ranging between 1.0 and 1.99 enrolled, and 66.7% of applicant with science grade point averages ranging between 3.6 and 4.0 enrolled. A similar pattern is presented in Table 122 which is based upon non-science grade point averages. Only 35.7% of applicants with non-science grade point averages ranging between 1.0 and 1.99 enrolled while 77.2% of applicants with non-science grade point averages ranging between 3.6 and 4.0 enrolled. The enrollment patterns across non-science grade point averages appears just as strong as enrollment patterns across science grade point averages.

Finally, the age distribution for the enrolled applicants differs significantly (0.5% level) from that for the non-enrolled applicants (Table 123). A relatively small percentage of applicants over the age of 30 enrolled (26.0%), whereas over half (59.0%) of applicants under the age of 21 enrolled. Similar to the pattern presented in Table 117, applicants spending the least amount of time preparing for dental school are those most likely to enroll.

Table 102

Enrollment Status among Black Applicants, 1973 - 1981

RESCODE	Num	Percent
ENROLL	1858	40.64 %
NOTENRL	2714	59.36

Total = 4572

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 103

Enrollment Status by DAT Average

DATAVG / RESCODE	ENROLL	NOTENRL	Total
-	0	38	38
0	6	139	145
1	106	687	793
2	487	958	1445
3	678	560	1238
4	415	241	656
5	134	75	209
6&OVER	32	16	48
Total	1858	2714	4572

Chi-square = 682.2294

Degrees of Freedom = 7

Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 104

Enrollment Status by DAT Science Score

DATSCI / RESCODE

	ENROLL	NOTENRL	Total
-	19	258	277
0	87	416	503
1	247	617	864
2	420	626	1046
3	447	411	858
4	373	217	590
5	165	108	273
6&OVER	100	61	161
Total	1858	2714	4572

Chi-square = 543.3080
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 105

Enrollment Status by DAT Reading Score

DATREAD / RESCODE

	ENROLL	NOTENRL	Total
-	30	201	231
0	99	406	505
1	267	541	808
2	412	622	1034
3	436	425	861
4	311	291	602
5	185	147	332
6&OVER	118	81	199
Total	1858	2714	4572

Chi-square = 311.4678
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 106

Enrollment Status by DAT Quantitative Score

DATQUANT / RESCODE

	ENROLL	NOTENRL	Total
-	50	302	352
0	145	484	629
1	341	629	970
2	490	562	1052
3	382	383	765
4	238	216	454
5	138	92	230
6&OVER	74	46	120
Total	1858	2714	4572

Chi-square = 321.3497
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 107

Enrollment Status by DAT Perceptual Score

DATPAVG / RESCODE

	ENROLL	NOTENRL	Total
-	16	202	218
0	29	214	243
1	188	571	759
2	421	565	986
3	477	365	842
4	379	172	551
5	199	75	274
6&OVER	102	33	135
Total	1811	2197	4008

Chi-square = 666.8955
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 108

Enrollment Status by Gender

ASEX / RESCODE

	ENROLL	NOTENRL	Total
F	644	438	1082
M	1050	864	1914
Total	1694	1302	2996

Chi-square = 6.1101
Degrees of Freedom = 1
Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 109

Enrollment Status by Father's Education

AFED / RESCODE

	ENROLL	NOTENRL	Total
GRADDEG	294	134	428
SOMEGRAD	45	26	71
COLLDEG	131	81	212
SOMECOLL	189	124	313
BUSTECH	60	63	123
HSGRAD	273	191	464
SOMEHS	183	175	358
ELEMED	133	106	239
SOMEELEM	73	73	146
Total	1381	973	2354

Chi-square = 38.4208
Degrees of Freedom = 8
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 110

Enrollment Status by Mother's Education

AMED / RESCODE	ENROLL	NOTENRL	Total
GRADDEG	207	115	322
SOMEGRAD	104	43	147
COLLDEG	178	103	281
SOMECOLL	200	166	366
BUSTECH	78	52	130
HSGRAD	340	254	594
SOMEHS	204	163	367
ELEMED	81	77	158
SOMEELEM	38	28	66
Total	1430	1001	2431

Chi-square = 23.6536
Degrees of Freedom = 8
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 111

Enrollment Status by Father's Occupation

AFOCCODE / RESCODE	ENROLL	NOTENRL	Total
BUS	152	112	264
CLE	35	25	60
DEN	97	34	131
HEA	60	38	98
LAB	219	189	408
OTH	203	179	382
PRO	254	148	402
SAL	52	45	97
TEC	252	165	417
Total	1324	935	2259

Chi-square = 27.1018
Degrees of Freedom = 8
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 112

Enrollment Status by Mother's Occupation

AMOCCODE / RESCODE

	ENROLL	NOTENRL	Total
BUS	63	39	102
CLE	130	71	201
DOM	364	284	648
HEA	142	91	233
LAB	51	43	94
OTH	135	109	244
PRO	349	199	548
SAL	59	65	124
TEC	59	49	108
Total	1352	950	2302

Chi-square = 20.1438
Degrees of Freedom = 8
Chi-square statistic significant at the 1.0% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 113

Enrollment Status by Parents' Income

CPARINC / RESCODE

	ENROLL	NOTENRL	Total
0-9.9K	59	148	207
10-19.9K	85	203	288
20-29.9K	60	155	215
30-39.9K	30	103	133
40-49.9K	25	63	88
50-59.9K	11	40	51
60K&OVER	15	45	60
Total	285	757	1042

Chi-square = 3.4630

Degrees of Freedom = 6

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 114

Enrollment Status by Size of Permanent Residence

CPERMRES / RESCODE	ENROLL	NOTENRL	Total
0-2.5K&FARM	20	68	88
2.5-25K	66	164	230
25-100K	65	174	239
100K-1M	65	209	274
OVER1M	80	176	256
Total	296	791	1087

Chi-square = 4.9386
Degrees of Freedom = 4
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 115

Enrollment Status by High School Rank

CHSR / RESCODE	ENROLL	NOTENRL	Total
0-40	11	46	57
41-60	36	89	125
61-80	76	240	316
81-100	172	414	586
Total	295	789	1084

Chi-square = 4.9100
Degrees of Freedom = 3
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 116

Enrollment Status by Undergraduate Major

AMAJOR / RESCODE

	ENROLL	NOTENRL	Total
DENTAL	104	57	161
HLTH1	64	95	159
HUMAN1	63	49	112
NTSCI1	1050	674	1724
OTHER	57	52	109
SOCSCI	102	83	185
Total	1440	1010	2450

Chi-square = 31.1913
Degrees of Freedom = 5
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 117

Enrollment Status by Years of College Completed

AYRSCOL / RESCODE

	ENROLL	NOTENRL	Total
3&UNDER	156	60	216
4	597	291	888
5	167	192	359
6	303	291	594
Total	1223	834	2057

Chi-square = 79.3706
Degrees of Freedom = 3
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 118

Enrollment Status by Hours of College Credit Completed

CEDHRS / RESCODE

	ENROLL	NOTENRL	Total
0-60	21	86	107
61-90	52	128	180
91-120	100	233	333
ABACCDEG	103	302	405
ADVDEG	20	41	61
Total	296	790	1086

Chi-square = 6.2968
Degrees of Freedom = 4
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 119

Enrollment Status by Undergraduate College Location

UGSTATE / RESCODE

	ENROLL	NOTENRL	Total
ENC	298	426	724
ESC	251	370	621
MA	205	261	466
MTN	17	13	30
NE	68	60	128
PAC	157	202	359
SA	560	793	1353
WNC	58	77	135
WSC	130	282	412
Total	1744	2484	4228

Chi-square = 29.0872
Degrees of Freedom = 8
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 120

Enrollment Status by Cumulative College Grade Point Average

CCCGPA / RESCODE

	ENROLL	NOTENRL	Total
1.0-2.5	46	228	274
2.6-3.0	166	386	552
3.0-3.5	72	150	222
3.6-4.0	14	31	45
Total	298	795	1093

Chi-square = 20.6843
Degrees of Freedom = 3
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 121

Enrollment Status by College Science Grade Point Average

ASGPA / RESCODE

	ENROLL	NOTENRL	Total
1.0-1.99	119	278	397
2.0-2.59	666	708	1374
2.6-2.99	513	480	993
3.0-3.59	322	220	542
3.6-4.00	74	37	111
Total	1694	1723	3417

Chi-square = 97.3504
Degrees of Freedom = 4
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 122

Enrollment Status by College Non-science Grade Point Average

ANSGPA / RESCODE	ENROLL	NOTENRL	Total
1.0-1.99	15	27	42
2.0-2.59	246	334	580
2.6-2.99	398	292	690
3.0-3.59	598	238	836
3.6-4.00	132	39	171
Total	1389	930	2319

Chi-square = 153.8443
Degrees of Freedom = 4
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 123

Enrollment Status by Age

AGEDAT / RESCODE	ENROLL	NOTENRL	Total
17-20	150	104	254
21	445	383	828
22	321	382	703
23	201	286	487
24	137	273	410
25	122	208	330
26-30	342	686	1028
31&OVER	136	388	524
Total	1854	2710	4564

Chi-square = 182.8139
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

V. BLACKS COMPLETING DENTAL SCHOOL: 1976-1985

As shown in the previous section, 1,858 blacks were found to have entered dental school between 1973 and 1981. This section will focus on the characteristics of those who did and did not complete school. Table 124 presents enrollment and graduation data for blacks in US dental schools between 1971 and 1984. (This is the most recent year for which data is available in this form by race.) It is not necessarily accurate to follow the movement of first year students through four years of dental school and into graduation for several reasons. First, dental school programs can vary in length from three to more than four years; the mode is around four years. Second, a student may take some time off to earn additional funds for school; he/she could then re-enter as a second, third, or fourth year student a year or more later. This table is intended only to give one an idea of what was happening to black enrollment in US dental schools during this period. First year students peaked in 1975 through 76 (298) and 1982 through 82 (299), and graduates peaked in 1977 through 78 (215). Total black enrollment peaked in 1979 through 80. (It should be noted that total dental school enrollment has declined since 1982).

A total of 1,609 of the 1,858 blacks who entered dental school between 1973 and 1981 were found to have graduated by 1985 (Table 125). Of course, the actual number of graduates could be higher—some students who graduated may not have been found to graduate due to the restrictions required in the name matching process. The current data set does not provide a means of determining the reasons for attrition. Tables 126 through 146 examine characteristics across those found to graduate and those not found to graduate.

As revealed in Table 126, the graduation status does not appear to be distributed differently across the DAT average. This is also true for the DAT science score (Table 127), the DAT reading score (Table 128), and the DAT quantitative score (Table 129). Apparently, the DAT scores are distributed differently across those applicants who do and who do not enroll in dental school (see previous section), but, once an applicant enters dental school, his/her likelihood of graduating is independent of most of his or her DAT scores.

The X^2 statistic for graduation status by DAT perceptual score (Table 130) is significant at the 2.5% level. Apparently, as the DAT perceptual score rises, the proportion of students graduating also rises. While 83.6% of the students who scored 2 or below on the DAT perceptual average and enrolled in dental school were found to graduate, 88.5% of the student who scored 3 and above who entered dental school were found to graduate.

The distribution of graduates versus those students who were not found to graduate does not appear to vary across gender (Table 131), father's education (Table 132), mother's education (Table 133), father's occupation (Table 134), mother's occupation (Table 135), parent's income (Table 136), size of permanent residence (Table 137), high school rank (Table 138), undergraduate major (Table 139), years of college completed (Table 140), undergraduate college location (Table 142), cumulative college GPA (Table 143), science GPA (Table 144), or non-science GPA (Table 145). Thus, while these characteristics may be good indicators of those applicants who will enroll in dental school, they do not appear to be good indicators of those students who will graduate. For instance, 84.2% of those dental students whose undergraduate non-science GPA was between 1.0 and 2.99 were found to graduate, as were 87.1% of those students whose undergraduate non-science GPA had been between 3.0 and 4.0 (Table 145).

However, the graduation status does appear to be distributed differently across the hours of college credit completed (Table 141) and the student's age (Table 146). In fact, 92.5% of those students who had completed 120 hours of college credit or less were found to graduate, while only 79.7% of those who had completed a baccalaureate or advanced degree were found to graduate. Much this same story holds true for the student's age. (The age is measured when the applicant takes the DAT.) Almost nine-tenths (89.5%) of those students 25 or younger were found to graduate; only 78.0% of those students 26 and over were found to graduate.

Table 124

Blacks in US Dental Schools: 1971-1984

Academic Year	1st Year Students	2nd Year Students	3rd Year Students	4th Year Students	Graduates
1971-72	245	165	113	74	55
1972-73	244	220	142	103	74
1973-74	273	232	233	134	110
1974-75	279	204	227	197	154
1975-76	298	258	207	214	187
1976-77	290	238	204	223	213
1977-78	296	260	212	200	215
1978-79	280	289	216	192	203
1979-80	274	282	262	191	182
1980-81	NA	NA	NA	NA	NA
1981-82	299	247	237	216	214
1982-83	NA	NA	NA	NA	NA
1983-84	276	246	249	229	200

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 125

Graduation Status among Black Dental Students, 1976 - 1985

RESCODE	Num	Percent
NOTGRAD	249	13.40 %
GRADUATE	1609	86.60
Total = 1858		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 126

Graduation Status by DAT Average

DATAVG / RESCODE

	GRADUATE	NOTGRAD	Total
0	5	1	6
1	89	17	106
2	419	68	487
3	583	95	678
4	363	52	415
5	122	12	134
6&OVER	28	4	32
Total	1609	249	1858

Chi-square = 3.6163
Degrees of Freedom = 6
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 127

Graduation Status by DAT Science Score

DATSCI / RESCODE

	GRADUATE	NOTGRAD	Total
-	17	2	19
0	76	11	87
1	210	37	247
2	353	67	420
3	395	52	447
4	319	54	373
5	148	17	165
6&OVER	91	9	100
Total	1609	249	1858

Chi-square = 7.6740
Degrees of Freedom = 7
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 128

Graduation Status by DAT Reading Score

DATREAD / RESCODE

	GRADUATE	NOTGRAD	Total
-	27	3	30
0	80	19	99
1	226	41	267
2	364	48	412
3	383	53	436
4	260	51	311
5	166	19	185
6&OVER	103	15	118
Total	1609	249	1858

Chi-square = 9.7278
Degrees of Freedom = 7
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 129

Graduation Status by DAT Quantitative Score

DATQUANT / RESCODE

	GRADUATE	NOTGRAD	Total
-	44	6	50
0	123	22	145
1	288	53	341
2	420	70	490
3	336	46	382
4	208	30	238
5	123	15	138
6&OVER	67	7	74
Total	1609	249	1858

Chi-square = 4.6451
Degrees of Freedom = 7
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 130

Graduation Status by DAT Perceptual Score

DATPAVG / RESCODE	GRADUATE	NOTGRAD	Total
-	12	4	16
0	23	6	29
1	153	35	188
2	359	62	421
3	416	61	477
4	334	45	379
5	176	23	199
6&OVER	98	4	102
Total	1571	240	1811

Chi-square = 17.7569
Degrees of Freedom = 7
Chi-square statistic significant at the 2.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 131

Graduation Status by Gender

ASEX / RESCODE	GRADUATE	NOTGRAD	Total
F	555	89	644
M	903	147	1050
Total	1458	236	1694

Chi-square = 0.0108
Degrees of Freedom = 1
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 132

Graduation Status by Father's Education

AFED / RESCODE	GRADUATE	NOTGRAD	Total
GRADDEG	259	35	294
SOMEGRAD	39	6	45
COLLDEG	112	19	131
SOMECOLL	156	33	189
BUSTECH	49	11	60
HSGRAD	232	41	273
SOMEHS	156	27	183
ELEMED	119	14	133
SOMEELEM	60	13	73
Total	1182	199	1381

Chi-square = 6.1235
Degrees of Freedom = 8
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 133

Graduation Status by Mother's Education

AMED / RESCODE	GRADUATE	NOTGRAD	Total
GRADDEG	179	28	207
SOMEGRAD	91	13	104
COLLDEG	159	19	178
SOMECOLL	170	30	200
BUSTECH	62	16	78
HSGRAD	295	45	340
SOMEHS	167	37	204
ELEMED	73	8	81
SOMEELEM	32	6	38
Total	1228	202	1430

Chi-square = 9.0060
Degrees of Freedom = 8
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 134

Graduation Status by Father's Occupation

AFOCCODE / RESCODE

	GRADUATE	NOTGRAD	Total
BUS	129	23	152
CLE	30	5	35
DEN	85	12	97
HEA	55	5	60
LAB	187	32	219
OTH	177	26	203
PRO	217	37	254
SAL	43	9	52
TEC	215	37	252
Total	1138	186	1324

Chi-square = 2.9126
Degrees of Freedom = 8
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 135

Graduation Status by Mother's Occupation

AMOCCODE / RESCODE

	GRADUATE	NOTGRAD	Total
BUS	55	8	63
CLE	113	17	130
DOM	313	51	364
HEA	116	26	142
LAB	43	8	51
OTH	123	12	135
PRO	303	46	349
SAL	51	8	59
TEC	46	13	59
Total	1163	189	1352

Chi-square = 8.7984
Degrees of Freedom = 8
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 136

Graduation Status by Parents' Income

CPARINC / RESCODE

	GRADUATE	NOTGRAD	Total
0-9.9K	51	8	59
10-19.9K	71	14	85
20-29.9K	56	4	60
30-39.9K	27	3	30
40-49.9K	21	4	25
50-59.9K	10	1	11
60K&OVER	12	3	15
Total	248	37	285

Chi-square = 4.2905

Degrees of Freedom = 6

Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 137

Graduation Status by Size of Permanent Residence

CPERMRES / RESCODE

	GRADUATE	NOTGRAD	Total
0-2.5K&FARM	17	3	20
2.5-25K	59	7	66
25-100K	57	8	65
100K-1M	56	9	65
OVER1M	68	12	80
Total	257	39	296

Chi-square = 0.7402

Degrees of Freedom = 4

Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 138

Graduation Status by High School Rank

CHSR / RESCODE	GRADUATE	NOTGRAD	Total
0-40	9	2	11
41-60	33	3	36
61-80	67	9	76
81-100	147	25	172
Total	256	39	295

Chi-square = 1.3704
Degrees of Freedom = 3
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 139

Graduation Status by Undergraduate Major

AMAJOR / RESCODE	GRADUATE	NOTGRAD	Total
DENTAL	88	16	104
HLTH1	53	11	64
HUMAN1	56	7	63
NTSCI1	906	144	1050
OTHER	49	8	57
SOCSCI	82	20	102
Total	1234	206	1440

Chi-square = 3.6988
Degrees of Freedom = 5
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 140

Graduation Status by Years of College Completed

AYRSCOL / RESCODE

	GRADUATE	NOTGRAD	Total
3&UNDER	139	17	156
4	518	79	597
5	136	31	167
6	255	48	303
Total	1048	175	1223

Chi-square = 5.0896
Degrees of Freedom = 3
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 141

Graduation Status by Hours of College Credit Completed

CEDHRS / RESCODE

	GRADUATE	NOTGRAD	Total
0-60	19	2	21
61-90	47	5	52
91-120	94	6	100
ABACCDEG	82	21	103
ADVDEG	16	4	20
Total	258	38	296

Chi-square = 11.0317
Degrees of Freedom = 4
Chi-square statistic significant at the 5.0% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 142

Graduation Status by Undergraduate College Location

UGSTATE / RESCODE

	GRAD	NOTGRAD	Total
ENC	264	34	298
ESC	212	39	251
MA	173	32	205
MTN	16	1	17
NE	59	9	68
PAC	138	19	157
SA	498	62	560
WNC	46	12	58
WSC	111	19	130
Total	1517	227	1744

Chi-square = 9.3709
Degrees of Freedom = 8
Chi-square statistic is not significant

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 143

Graduation Status by Cumulative College Grade Point Average

CCCGPA / RESCODE

	GRADUATE	NOTGRAD	Total
1.0-2.5	41	5	46
2.6-3.0	142	24	166
3.0-3.5	63	9	72
3.6-4.0	13	1	14
Total	259	39	298

Chi-square = 0.9298
Degrees of Freedom = 3
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 144

Graduation Status by College Science Grade Point Average

ASGPA / RESCODE	GRADUATE	NOTGRAD	Total
1.0-1.99	105	14	119
2.0-2.59	579	87	666
2.6-2.99	429	84	513
3.0-3.59	283	39	322
3.6-4.00	62	12	74
Total	1458	236	1694

Chi-square = 4.6492
Degrees of Freedom = 4
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 145

Graduation Status by College Non-science Grade Point Average

ANSGPA / RESCODE	GRADUATE	NOTGRAD	Total
1.0-1.99	14	1	15
2.0-2.59	207	39	246
2.6-2.99	334	64	398
3.0-3.59	527	71	598
3.6-4.00	109	23	132
Total	1191	198	1389

Chi-square = 6.1669
Degrees of Freedom = 4
Chi-square statistic is not significant.

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 146

Graduation Status by Age

AGEDAT / RESCODE	GRADUATE	NOTGRAD	Total
17-20	136	14	150
21	404	41	445
22	281	40	321
23	183	18	201
24	121	16	137
25	107	15	122
26-30	267	75	342
31&OVER	106	30	136
Total	1605	249	1854

Chi-square = 43.1483
Degrees of Freedom = 7
Chi-square statistic significant at the 0.5% level.

Totals may not equal totals reported in the text due to missing or incomplete data.

VI. BLACKS ENTERING DENTISTRY: 1976-1985

Tables 147 through 180 present the career, specialty, employment status, and location decisions for blacks entering dentistry between 1976 and 1985. Given the nature of one's progress in a dental career (i.e., a movement into a specialty and towards practice ownership as the career progresses), one should break down the examination of the graduates according to the number of years that have passed since the dentist's graduation. The timing of the DOD and SRG data allows for the examination of three groups of black dental graduates: those within two years of graduation (after one to two years), those who have been out three years (after three years), and those who have been out four or more years. For this study, the after one to two years group is comprised of 1980 through 1985 graduates; the after three is made up of 1979 graduates; and, the after four or more includes 1976 through 1978 graduates. (Table 147 presents these breakdowns; over four-fifths of the graduates included in this phase of the study are examined within two years of graduation.)

Within two years after graduation, over half of the black dental school graduates (53.6%) listed private practice as their primary occupation; over one-fourth were employed/enrolled as interns/students (14.5%) or by a governmental agency (10.7%). (A listing of the primary and secondary occupations, dental specialties, and employment statuses is presented in the Appendix.) Almost five percent of the graduates were looking for employment up to two years after graduation (Table 148). There is a shift in the primary occupation between the one to two year group and the three year group; almost 70% of the 1979 black graduating class indicated that private practice was their primary occupation three years after graduation (Table 149). In fact, both private practice and armed forces exhibit gains, while the other occupations experience declines or remain stable. The most significant change seen in comparing the after three years group to the after four or more years group is the increase in faculty/staff dentists (Table 150).

The percentage of black dentists indicating involvement in a secondary occupation rises as the length of time after graduation increases (Tables 151 through 153). Less than one-third of the recent graduates (within two years) list a secondary occupation (Table 151); this increases to almost one-half for the after three years group (Table 152) and to over one-half for the after four or more years group (Table 153). This would be consistent with the notion that a dentist just entering dentistry would want to devote all of his or her energies to his or her primary occupation.

Tables 154 through 156 present the general practice versus dental specialty breakdowns for the three groups of graduates examined. Within two years of graduation, over eighty-five percent of the 1980 through 1985 black dental school graduates had chosen to practice general dentistry (Table 154). Only eight percent of the 1979 graduates had entered a dental specialty within three years of graduation (Table 155); this doubles to reach over sixteen percent of the 1976 through 1978 graduates (Table 156).

Much like the percentage of black dentists holding a secondary occupation, the percentage of black dentists owning a dental practice increases as the dentist is out of dental school longer. Only 37.6% of the recent graduates own their practice (Table 157). This increases to 74.2% of the three year group (Table 158) and to 89.1% of the four or more year group (Table 159).

Almost half of the 1980 through 1985 black dental graduates had located in the South Atlantic and East South Central regions of the US within two years of graduation (Table 160). (A breakdown of the states included in each region is presented in the appendix.) In contrast, less than two percent of the recent graduates had located in the New England and Mountain regions combined. Much the same holds true for the 1979 graduates also tended to locate in the South Atlantic region (Table 162). There is not much variation in the regional location across the different groups.

Tables 163 through 165 present the percentage of the population which is black for those areas in which black dentists practice. About 45% of the 1980 through 1985 graduates practiced in areas with more than 25% black population within two years of graduation (Table 163). The breakdown is very similar for 1979 graduates after three years (Table 164) and the 1976 through 1978 graduates after four or more years (Table 165).

Tables 166 through 168 examine the city size of the practicing city for black dentists. Within three years of graduation (Tables 166 and 167), about 66% of the black dentists practiced in cities with a population of over 100,000 persons. In contrast, 41.5% of the black dentists examined four or five years after graduation practiced in cities of less than 100,000 persons (Table 168). This could represent a locational shift after a young dentist (within three years of graduation) has obtained experience in a large city or has completed specialty education.

As shown in Tables 169 through 171, over 80% of the black dentists included in this study had begun practicing in an area with 75% or more urban population up to five years after graduation. It is, however, interesting to note that the percentage in the 75% or more urban population group declines from 84.7% of those dentists within two years of graduation to 80.7% of those dentists examined four or five years after graduation.

Less than 2% of the black dentists included in this study practiced in cities in which more than 30% of the population lived below the poverty level (Tables 172 through 174). Almost one-fourth of the group examined three years after graduation practiced in a city in which less than 10% of the residents lived below the poverty level. The majority of the black dentists included in the examination practiced in areas in which 10% to 20% of the population was below the poverty level. For the US, 11.7% of the population lived below the poverty level in 1970; this increased to 13.0% of the population in 1980.

Finally, Tables 175 through 180 examine the locational decision within the context of nearby dental schools and dental graduates. As the black dentist moves away from graduation, the percentage locating practices in an area with no dental school increases. Less than 45% of the recent graduates (within two years) had located in an area with no dental school (Table 175). This increase to 47.6% of the group examined within three years of graduation (Table 176) and 51.8% of the group four or five years after graduation (Table 177). Not surprisingly, a very similar trend emerges when one focuses on the dental school graduates from area schools as the percentage locating in areas which had no dental school graduates jumps from 44.2% of the recent graduate group (Table 178) to 51.8% of the after four or five year group (Table 180).

Table 147

Black Dental Graduates by Years after Graduation

GRADYR	Num	Percent
AFT1-2	1227	81.80 %
AFT3	160	10.67
AFT4	113	7.53

Total = 1500

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 148

Primary Occupation within Two Years of Graduation

PRIMOCC	Num	Percent
ARMFOR	57	7.82 %
FACSTAFF	16	2.19
GOVT	78	10.70
INTSTU	106	14.54
LOOK	36	4.94
NOTDENT	6	0.82
OTHER	39	5.35
PRIVPRAC	391	53.64

Total = 729

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 149

Primary Occupation Three Years after Graduation

PRIMOCC	Num	Percent
ARMFOR	9	10.34 %
FACSTAFF	2	2.30
GOVT	7	8.05
INTSTU	4	4.60
LOOK	2	2.30
NOTDENT	1	1.15
OTHER	2	2.30
PRIVPRAC	60	68.97
Total = 87		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 150

Primary Occupation Four or Five Years after Graduation

PRIMOCC	Num	Percent
ARMFOR	5	7.46 %
FACSTAFF	5	7.46
GOVT	6	8.96
INTSTU	0	0.00
LOOK	0	0.00
NOTDENT	0	0.00
OTHER	5	7.46
PRIVPRAC	46	68.66
Total = 67		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 151

Secondary Occupation within Two Years of Graduation

SECOCC	Num	Percent
ARMFOR	5	0.76 %
FACSTAFF	13	1.98
GOVT	23	3.50
INTSTU	19	2.89
LOOK	19	2.89
NONE	449	68.24
NOTDENT	22	3.34
OTHER	30	4.56
PRIVPRAC	78	11.85

Total = 658

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 152

Secondary Occupation Three Years after Graduation

SECOCC	Num	Percent
ARMFOR	3	6.00 %
FACSTAFF	2	4.00
INTSTU	1	2.00
LOOK	1	2.00
NONE	26	52.00
NOTDENT	3	6.00
OTHER	5	10.00
PRIVPRAC	9	18.00

Total = 50

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 153

Secondary Occupation Four or Five Years after Graduation

SECOCC	Num	Percent
ARMFOR	1	2.70 %
FACSTAFF	4	10.81
INTSTU	0	0.00
LOOK	0	0.00
NONE	0	0.00
GOVT	2	5.41
LOOK	1	2.70
NONE	17	45.95
NOTDENT	2	5.41
OTHER	3	8.11
PRIVPRAC	7	18.92

Total = 37

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 154

Dental Specialty within Two Years of Graduation

SPECIALTY	Num	Percent
GENPRAC	596	87.01 %
OTHER	89	12.99

Total = 685

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 155

Dental Specialty Three Years after Graduation

SPECIALTY	Num	Percent
GENPRAC	80	91.95 %
OTHER	7	8.05
Total = 87		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 156

Dental Specialty Four or Five Years after Graduation

SPECIALTY	Num	Percent
GENPRAC	55	83.33 %
OTHER	11	16.67
Total = 66		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 157

Employment Status within Two Years of Graduation

EMPSTAT	Num	Percent
OTHER	244	62.40 %
OWNER	147	37.60

Total = 391

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 158

Employment Status Three Years after Graduation

EMPSTAT	Num	Percent
OTHER	16	25.81 %
OWNER	46	74.19

Total = 62

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 159

Employment Status Four or Five Years after Graduation

EMPSTAT	Num	Percent
OTHER	5	10.87 %
OWNER	41	89.13

Total = 46

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 160

Regional Location within Two Years of Graduation

	Num	Percent
ENC	199	16.51 %
ESC	212	17.59
MA	165	13.69
MTN	8	0.66
NE	15	1.24
PAC	107	8.88
SA	372	30.87
WNC	29	2.41
WSC	98	8.13

Total = 1205

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 161

Regional Location Three Years after Graduation

BFSTATE	Num	Percent
ENC	28	18.18 %
ESC	23	14.94
MA	18	11.69
MTN	2	1.30
NE	4	2.60
PAC	12	7.79
SA	47	30.52
WNC	13	8.44
WSC	7	4.55
Total = 154		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 162

Regional Location Four or Five Years after Graduation

BFSTATE	Num	Percent
ENC	21	17.95 %
ESC	22	18.80
MA	16	13.68
MTN	0	0.00
NE	3	2.56
PAC	10	8.55
SA	32	27.35
WNC	4	3.42
WSC	9	7.69
Total = 117		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 163

Black's Percentage of the Population: Location within Two Years of Graduation

PBLKPOP80	Num	Percent
0-10%	170	14.77 %
10.1-25%	467	40.57
25.1-50%	356	30.93
50.1-75%	153	13.29
75%&UP	5	0.43
Total = 1151		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 164

Black's Percentage of the Population: Location Three Years after Graduation

PBLKPOP80	Num	Percent
0-10%	25	17.24 %
10.1-25%	59	40.69
25.1-50%	47	32.41
50.1-75%	14	9.66
Total = 145		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 165

Black's Percentage of the Population: Location Four or Five Years after Graduation

PBLKPOP80	Num	Percent
0-10%	19	16.67 %
10.1-25%	42	36.84
25.1-50%	41	35.96
50.1-75%	12	10.53
Total = 114		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 166

City Size within Two Years of Graduation

BFPLCSIZE	Num	Percent
OVER100K	805	66.42 %
UNDER100K	407	33.58
Total = 1212		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 167

City Size Three Years after Graduation

BFPLCSIZE	Num	Percent
OVER100K	104	65.82 %
UNDER100K	54	34.18
Total = 158		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 168

City Size Four or Five Years after Graduation

BFPLCSIZE	Num	Percent
OVER100K	69	58.47 %
UNDER100K	49	41.53
Total = 118		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 169

Urban Percentage of the Population: Location within Two Years of Graduation

URBPOP80	Num	Percent
0-25	23	2.00 %
25-50	43	3.74
50-75	110	9.56
75&UP	975	84.71
Total = 1151		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 170

Urban Percentage of the Population: Location Three Years after Graduation

URBPOP80	Num	Percent
0-25	4	2.76 %
25-50	2	1.38
50-75	18	12.41
75&UP	121	83.45
Total = 145		

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 171

Urban Percentage of the Population: Location Four or Five Years after Graduation

URBPOP80	Num	Percent
0-25	0	0.00 %
25-50	3	2.63
50-75	19	16.67
75&UP	92	80.70

Total = 114

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 172

Percentage of the Population Living below the Poverty Level: Location within Two Years of Graduation

BELOWPOV	Num	Percent
0-10	202	17.55 %
10-20	768	66.72
20-30	160	13.90
30-40	16	1.39
40-50	5	0.43

Total = 1151

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 173

Percentage of the Population Living below the Poverty Level: Location Three Years after Graduation

BELOWPOV	Num	Percent
0-10	36	24.83 %
10-20	86	59.31
20-30	22	15.17
30-40	1	0.69
40-50	0	0.00

Total = 145

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 174

Percentage of the Population Living below the Poverty Level: Location Four or Five Years after Graduation

BELOWPOV	Num	Percent
0-10	22	19.30 %
10-20	74	64.91
20-30	18	15.79
30-40	0	0.00
40-50	0	0.00

Total = 114

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 175

Number of Dental Schools in Locating City: Within Two Years of Graduation

DDSSCH	Num	Percent
00	506	43.96 %
01	374	32.49
02	207	17.98
03	64	5.56

Total = 1151

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 176

Number of Dental Schools in Locating City: Three Years after Graduation

DDSSCH	Num	Percent
00	69	47.59 %
01	47	32.41
02	24	16.55
03	5	3.45

Total = 145

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 177

Number of Dental Schools in Locating City: Four or Five Years after Graduation

DDSSCH	Num	Percent
00	59	51.75 %
01	37	32.46
02	13	11.40
03	5	4.39

Total = 114

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 178

Number of Graduates from Dental Schools in Locating City: Within Two Years of Graduation

DDSGRADS	Num	Percent
0	509	44.22 %
1-29	14	1.22
30-59	126	10.95
60-89	120	10.43
90-119	25	2.17
120&UP	357	31.02

Total = 1151

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 179

Number of Graduates from Dental Schools in Locating City: Three Years after Graduation

DDSGRADS	Num	Percent
0	70	48.28 %
1-29	1	0.69
30-59	10	6.90
60-89	18	12.41
90-119	3	2.07
120&UP	43	29.66

Total = 145

Totals may not equal totals reported in the text due to missing or incomplete data.

Table 180

Number of Graduates from Dental Schools in Locating City: Four or Five Years after Graduation

DDSGRADS	Num	Percent
0	59	51.75 %
1-29	1	0.88
30-59	6	5.26
60-89	13	11.40
90-119	3	2.63
120&UP	32	28.07

Total = 114

Totals may not equal totals reported in the text due to missing or incomplete data.

VII. ANALYSIS OF ENROLLMENT, GRADUATION, AND OCCUPATION DECISIONS

The descriptive statistics presented in the preceding chapters offer the reader a useful overview of tendencies, trends, and simple relationships. Another view of the results can be constructed with the use of multivariate analysis which takes into account several variables at once when evaluating enrollment, graduation, and occupation decisions. This multiple variable approach supports the evaluation of hypotheses which sometimes can provide cause and effect answers to many relevant questions regarding the success of blacks in entering the dental profession. It must be remembered that the data available for this study are extremely limited in scope which greatly limits the types of questions that can be successfully addressed with multivariate analysis.

The decision to enroll into dental school (or the school's decision to accept an applicant) is recorded in the data as a binary variable which introduces difficulties in using the more common multivariate methods of analysis. Simple multiple regression is commonly used for analysis, but the examination of a binary dependent variable makes the use of multiple regression inappropriate. Instead, a Probit analytic routine was selected as the proper analytic tool. Probit is an iterative process which takes into account the fact that the dependent variable is binary. Probit analysis was also used in the examination of graduation and occupational decision patterns in that they too are recorded as binary variables.

The decision to enroll into dental school is actually a joint decision on the part of the applicant and the dental school. Records indicate that the student actually applied to dental school, but there is no indication, other than an enrollment code in the data set, that an applicant would choose dental school over other alternatives even if accepted. Therefore, evidence that a student did not enroll could mean either that the school rejected the applicant or that the school accepted the applicant but the applicant selected another career path (e.g., the student might have also been accepted into medical school and selected medicine as a career).

The independent variables in the probit equation are clearly not a complete, perfect set. Data limitations constrained the analysis with the inclusion of relatively few variables that differentiate one student from another. Among those included are: variables measuring performance on the DAT, variables measuring performance in college, sex, age, population of permanent residence, educational backgrounds of parents, occupations of parents, and parental income. No information was available that would indicate whether the student faced competing career options such as medicine, family responsibilities, or financial condition. Due to the exclusion of these other variables which have been found to be significant in other studies, the results reported herein can only be viewed as suggestive of what might be discovered in a more complete study.

Table 181 presents the results of the probit estimations for the years 1973 through 1979 which consider enrollment into dental school. Among the variables entered, DAT perceptual score, DAT reading score, DAT science score, college science GPA, and applicant's age are all statistically significant at the 5% level of confidence or better. All other coefficients of variables are not statistically significant and therefore cannot be viewed as being related to the enrollment variable. Among the variables which are not statistically significant are all variables which describe the educational backgrounds of the parents.

For each variable describing performance on the DAT which have statistically significant coefficients, the results indicate that the higher score on the exam is related to a greater likelihood of enrollment into dental school. Interestingly, the coefficient of the DAT average score, is not statistically significant at conventional levels. This most likely is indicative of a high correlation between the DAT average and other components of the score entered as independent variables (DAT perceptual average, reading score, quantitative score, and science socre.) The largest coefficient among the DAT performance measures is the coefficient of the perceptual score. Its value is virtually twice the size of the coefficient of the reading score and 55% larger than the coefficient of the science score. As indicated, the coefficient of quantitative score is not statistically significant at conventional levels. This suggests that performance in reading comprehension and science is more important than performance in quantitive skills.

The coefficient of college science GPA is statistically significant at conventional levels indicating that college performance in science courses is important in obtaining acceptance into dental school. The coefficient of the variable for performance in non-science courses, is not statistically significant. When expressed in elasticity form, the coefficient of the college science GPA equals .8704 as compared to the elasticities of the DAT perceptual and science scores of .4244 and .2312 respectively. This suggests that a 10% improvement in performance, as measured by the college science GPA is much more important than a 10% improvement in performance as measured by either the DAT perceputal or science score. Since a student can post a strong science GPA while majoring in humanities, this does not imply that humanities are not important in a dental education.

The coefficient of the gender variable is not statistically significant which suggests that males or females do not have any higher likelihood of entering dental school, once one accounts for other factors. One's age, however, is an important factor. The younger applicant is more likely to enroll than the older applicant.

This result is interesting since academic and DAT performance is already taken into account. Perhaps the older applicant has developed a broader range of alternatives or has greater financial responsibilities and is therefore less likely to enroll into dental school once accepted.

Table 182 offers additional probit results considering the enrollment question for the 1980 to 1985 applicants. In contrast to the previous results, the independent variables include measures that describe the father's occupation, parental income, and the population of the applicant's permanent residence. The only statistically significant coefficients included in the table are the DAT perceputal score and the applicant's age. Both are significant with similar signs in the previous table, but the overall equation is not terribly descriptive of differences in those who enroll and those who do not enroll.

Once the applicant enrolls into dental school, the next critical career question is graduation. Are there measurable differences in those who graduate and those who do not graduate? Table 183 presents the results from probit estimations for the 1973 through 1979 applicants designed to examine the graduation question. The estimating equation contains descriptions of DAT performance, college performance, age, sex, and parents' educational backgrounds. Among the variables entered, only two coefficients of variables are statistically significant—college science GPA and the applicant's age. Applicants with better grades in science courses in college (who have enrolled in dental school) are more likely to graduate from dental school. In light of this result, it is interesting to note that the coefficient of the college science GPA, in elasticity form, is the largest among all other measures of performance on the DAT and non-science courses. The coefficient of the age variable is negative and statistically significant, indicating that the younger dental student is more likely to graduate.

Table 184 presents results from a second probit estimation for the 1980 and 1981 applicants designed to explain differences in dental students who graduate and students who do not graduate. Independent variables include measures of DAT performance, population of permanent residence, undergraduate college performance, age, sex, father's education and occupation, and parental income. Among the coefficients of included independent variables, only three are statistically significant: the DAT perceptual and science scores and the sign of the applicant's permanent residence. Black students with higher perceptual scores and higher science scores on the DAT are more likely to graduate from dental school once enrolled. Also, students with permanent residences of smaller populations are more likely to graduate once enrolled. None of the performance measures from undergraduate college work are significantly related to the likelihood of graduating from dental school.

The final set of probit estimations considers differences in dental school graduates and their choices of career paths in dentistry. Of particular interest in this study is the choice of private practice as a career path. The probit equations, therefore, include a binary dependent variable which records the choice of private practice or another career path. This analysis is based upon a data set including only black dental school graduates.

Table 185 presents the first set of results from the probit estimations for the 1976 through 1983 graduates. The independent variables included in the equation describe the dentist's DAT performance, undergraduate college performance, age, sex, and parents' educational backgrounds. Interestingly, only one independent variable, from the sixteen included in the equation, has a coefficient that is statistically significant at conventional levels. Male black dentists are more likely to select private practice as a career choice than female black dentists. We find no other predictors among those examined which would provide a basis for projecting the likelihood that a black applicant to dental school, if he or she successfully completed dental school, would enter private practice.

Table 186 presents the second set of results from the probit estimations for the 1984 and 1985 graduates considering private practice as a career path. The independent variables include descriptions of parents' occupations as well as DAT performance and undergraduate college performance. None of the coefficients of variables in the equation are statistically significant at conventional levels. This estimating equation provides no basis by which black applicants can be evaluated as to a propensity to enter private practice.

In summary, the probit equations provide the possibility of evaluating independent effects of selected variables on enrollment, graduation, and career choice. The results suffer from a limited data set in which only a narrow scope of independent variables were available for consideration. These results must be viewed as suggestive of what results would be from a much more extensive study of black applicants.

The results indicate that a black applicant to dental school is more likely to enroll if he or she attains higher scores on the DAT, particularly in perception, reading comprehension and science, has had better performance in science courses during undergraduate college, and is relatively young. Once accepted into dental school, a black dental student is more likely to graduate if he or she has attained higher grades in science courses during undergraduate college, has attained higher scores on the DAT in perception and science, is young, and is from a relatively small community. Unfortunately, the data set did not provide a means of examining the fiscal responsibilities among the various groups (enroll/not enroll, graduate/not graduate, and career choices). Among black applicants who graduate from dental school, males are more likely to enter private practice than are females.

TABLE 181

Enrollment Into Dental School Among Black Applicants: 1973-1979 Applicants

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	-0.406077	0.588147	-0.690435
DATAVG	-0.058453	0.151785	-0.385101
DATPAVG	0.243739	0.045511	5.355557 ***
DATREAD	0.127075	0.057797	2.198636 **
DATQUANT	0.006049	0.050286	0.120284
DATSCI	0.156751	0.079018	1.983746 **
AYRSCOL	-0.018673	0.070122	-0.266296
ANSGPA	-0.000742	0.001318	-0.563239
ASGPA	0.005537	0.001320	4.193488 ***
SEX1	-0.106459	0.144680	-0.735828
AGE	-0.067114	0.019363	-3.465997 ***
DAFGS	0.251904	0.236592	1.064719
DAFCOLL	-0.077609	0.203374	-0.381609
DAFHST	0.124283	0.189519	0.655781
DAMGS	0.113634	0.247665	0.458823
DAMCOLL	0.135422	0.221749	0.610698
DAMHST	0.082410	0.196430	0.419537

*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

TABLE 182

Enrollment Into Dental School Among Black Applicants: 1980-1985 Applicants

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	-0.685089	1.013634	-0.675874
DATAVG	0.186877	0.247197	0.755985
DATPAVG	0.313828	0.087392	3.591037 ***
DATREAD	-0.053972	0.095671	-0.564139
DATQUANT	0.017147	0.086766	0.197622
DATSCI	0.060078	0.138320	0.434341
CPERMRES	-0.035611	0.089554	-0.397653
CHSR	-0.131435	0.131721	-0.997829
CEDHRS	0.133403	0.097958	1.361848
CCCGPA	0.155795	0.218127	0.714243
CCSGPA	0.107009	0.196147	0.545556
SEX1	0.181573	0.268452	0.676370
AGE	-0.067240	0.027991	-2.402156 **
DCFGS	0.350593	0.436360	0.803449
DCFCOLL	0.249142	0.382434	0.651465
DCFHS	0.308110	0.351025	0.877744
DMED	0.823643	0.567411	1.451582
DWC	-0.281313	0.323100	-0.870670
DBC	0.198513	0.321979	0.616539
CPARINC	-0.099630	0.077261	-1.289525

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*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

TABLE 183

Graduation From Dental School Among Black Dental Students: 1973-1979 Entering Classes

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	1.818164	0.950005	1.913847 *
DATAVG	-0.237352	0.212864	-1.115042
DATPAVG	0.052644	0.065024	0.809607
DATREAD	0.101882	0.079642	1.279245
DATQUANT	-0.051957	0.070641	-0.735506
DATSCI	0.139734	0.113491	1.231240
AYRSCOL	0.106108	0.100312	1.057771
ANSGPA	-0.002957	0.001951	-1.515659
ASGPA	0.004018	0.001843	2.180377 **
SEX1	-0.026078	0.198767	-0.131196
AGE	-0.061870	0.031410	-1.969739 **
DAFGS	-0.309584	0.341401	-0.906803
DAFCOLL	-0.212605	0.319758	-0.664894
DAFHST	-0.420823	0.276153	-1.523877
DAMGS	0.162027	0.345433	0.469056
DAMCOLL	0.137976	0.329891	0.418247
DAMHST	0.324003	0.292094	1.109241

*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

TABLE 184

Graduation From Dental School Among Black Dental Students: 1980 and 1981 Entering Classes

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	3.795256	3.654016	1.038653
DATAVG	-0.344125	0.838626	-0.410343
DATPAVG	0.455088	0.246611	1.845369 *
DATREAD	0.100574	0.313883	0.320417
DATQUANT	-0.312751	0.263767	-1.185711
DATSCI	0.743925	0.399739	1.861026 *
CPERMRES	-0.505057	0.266496	-1.895174 *
CHSR	-0.436283	0.418061	-1.043586
CEDHRS	0.063080	0.273843	0.230350
CCCGPA	-0.772551	0.673299	-1.147412
CCSGPA	0.540927	0.550720	0.982219
SEX1	-0.163654	0.797590	-0.205185
AGE	-0.067890	0.100955	-0.672471
DCFGS	1.353056	1.324525	1.021541
DCFCOLL	0.916303	1.337199	0.685241
DCFHS	1.361351	1.034450	1.316014
DMED	-0.000587	1.346225	-0.000436
DWC	-0.096612	1.008271	-0.095819
DBC	0.038180	0.971164	0.039314
CPARINC	-0.175464	0.208402	-0.841950

*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

TABLE 185

Private Practice Career Choice Among Black Dental School Graduates: 1976-1983 Graduates

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	0.967732	0.747405	1.294789
DATAVG	0.090922	0.174707	0.520426
DATPAVG	0.017661	0.053455	0.330401
DATREAD	-0.050048	0.061538	-0.813277
DATQUANT	-0.066718	0.058237	-1.145630
DATSCI	0.004297	0.089439	0.048038
AYRSCOL	-0.093336	0.080142	-1.164635
ANSGPA	0.000787	0.001521	0.517680
ASGPA	-0.002241	0.001622	-1.381124
SEX1	-0.256693	0.154625	-1.660102 *
AGE	0.034238	0.025385	1.348760
DAFGS	-0.138384	0.265109	-0.521987
DAFCOLL	-0.072231	0.239608	-0.301453
DAFHST	0.044940	0.220692	0.203634
DAMGS	0.188600	0.281180	0.670744
DAMCOLL	0.007921	0.255060	0.031055
DAMHST	0.116038	0.221861	0.523022

*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

TABLE 186

Private Practice Career Choice Among Black Dental School Graduates: 1984 and 1985 Graduates

Probit Results

Variable Name	Coefficient Estimates	Standard Errors	T-Statistic*
CONSTANT	-2.537404	1.694674	-1.497281
DATAVG	0.172003	0.428727	0.401193
DATPAVG	0.096602	0.111386	0.867272
DATREAD	-0.075628	0.123215	-0.613787
DATQUANT	-0.099613	0.130203	-0.765062
DATSCI	0.110927	0.223322	0.496714
CPERMRES	0.124822	0.116063	1.075468
CHSR	0.228433	0.233370	0.978844
CEDHRS	-0.090994	0.196181	-0.463830
CCCGPA	0.275534	0.297853	0.925069
CCSGPA	-0.038258	0.279978	-0.136646
SEX1	0.259509	0.355228	0.730544
AGE	0.046971	0.069016	0.680579
DCFGS	-0.281497	0.651427	-0.432123
DCFCOLL	-0.279173	0.511477	-0.545818
DCFHS	-0.421584	0.532979	-0.790995
DMED	0.411459	0.847924	0.485255
DWC	0.308177	0.510517	0.603656
DBC	0.014578	0.455683	0.031992
CPARINC	-0.054917	0.121366	-0.452487

*One, two, and three asterisks represent statistical significance at the ten, five, and one percent levels respectively.

VIII. SUMMARY

This report has examined the flow of blacks from an initial application to dental school through a few years after graduation dental practice. Several characteristics have been found to be related to DAT scores: gender, parent's education, mother's occupation, size of applicant's permanent residence, the applicant's high school rank, college major, grade point averages, years of college completed, hours of college credit earned, geographic location of undergraduate school, and age. Section IV examines the characteristics of blacks entering dental school and those not entering who took the DAT. Not surprisingly, the DAT scores were found to affect enrollment. Other characteristics related to enrollment are gender, parents' education, parents' occupation, college major, years of college completed, geographic location of undergraduate school, grade point averages, and age.

In Section V, the focus is on blacks completing dental school. Very few differences were observed between the characteristics of those graduating from dental school and those not graduating. Only the DAT perceptual score, hours of college credit earned, and applicant's age were found to be related to graduation.

Within two years of graduation, over one-half (53.6%) of the black dental school graduates had entered the private practice of dentistry; this figure rises to seventy percent three years after graduation. Approximately eighty-five percent of the black dentists examined are general practitioners, and the percentage owning a dental practice increases to almost nine-tenths (90%) within four or more years after graduation group. The black dentists appear to be geographically concentrated in the South Atlantic and East South Central regions of the US.

Results of the multivariate analysis are presented in Section VII. The analysis of the enrollment decision indicates that a black applicant is more likely to enroll if he or she has scored higher on the DAT, has better grades in science courses in undergraduate school, and is relatively young. Comparison of effects indicates that the most important predictor of enrollment is performance in science courses in undergraduate school. The analysis of graduation patterns provides little information regarding the predictability of success in completing dental school based upon the variables examined. The analysis of choice of private practice as a career provides only the tendency that male black dental school graduates are more likely to enter private practice than females.

COLLEGE MAJOR GROUPINGS

Natural Sciences (NTSCI)

- Aerospace Engr.
- Astronomy
- Anatomy
- Brochemistry
- Biomedical Engr.
- Biology
- Biomathematics
- Botany
- Biophysics
- Chem/Bio double major
- Chemical Engr.
- Chemistry
- Civil Engineering
- Computer Science
- Electrical Engineering
- Engineering
- Geophysics
- Geology
- Mathematics
- Meteorology
- Mechanical Engr.
- Microbiology/Bacteriology
- Natural Sciences
- Oceanography
- Physics
- Physiology
- Science
- Statistics
- Zoology

Social Sciences (SOCSCI)

- Anthropology
- Black Studies
- Economics
- Library Science
- Military Science
- Political Science
- Psychology
- Sociology
- Social Science

Humanities (HUMAN)

- Architecture
- Art
- Classics
- Education
- English
- Foreign Language
- General Studies
- Home Economics
- History
- Humanities
- International Relations
- Journalism
- Linguistics
- Literature
- Law
- Music
- Physical Education
- Philosophy
- Religion
- Speech
- Theatre Arts & Cinema

COLLEGE MAJOR GROUPINGS (Continued)

Business/Administration (BUSADM)

Accounting
Business
Health Administration
Hospital Administration

Dental (DENTAL)

Dental Assistant
Dental Hygiene
Dental Lab Technician
Pre-Dentistry

Other (OTHER)

Agriculture
Forestry
Geography
Other

Health-Related (HLTH)

Allied Health Programs
Chiropractic
Medical Technology
Nutrition
Nursing
Occupational Therapy
Optometry
Osteopathy
Pathology
Pharmacology
Pre-Medicine
Pre-Optometry
Pre-Osteopathic Medicine
Pre-Podiatric Medicine
Pre-Vetenary
Pharmacy
Physical Health
Public Health
Radiology
Vetenary Medicine

*Note: The Business/Administration and Other groups were combined to provide sufficient observations.

OCCUPATION MAPPINGS

Business/Managerial (BUS)

- Accountant
- Armed Forces-Officer
- Banker
- Business Executive
- Farm Manager
- Farm Owner
- Insurance Agent
- Office Manager
- Small Business Owner
- Supervisor

Technical/Craftsman (TEC)

- Artist
- Author
- Carpenter
- Craftsman
- Editor
- Electrician
- Journalist
- Laboratory Technician
- Machine Operator
- Machinist
- Mechanic
- News Reporter
- Plumber
- Postal Worker
- Printer
- Production Manager
- Repairman
- Research Technician
- Systems Analyst
- Technician/Semi-Pro

Professional (PRO)

- Architect
- Chemist
- Clergy
- Counselor
- Educator (Level I)
- Educator (Level II)
- Engineer
- Government Official
- Lawyer
- Librarian
- Physicist
- Policeman
- Psychologist
- Professional
- Radio/TV Broadcaster
- Social Worker
- Veterinarian

Clerical (CLE)

- Bookkeeper
- Clerical Worker
- File Clerk
- General Office Worker
- Keypuncher
- Secretary
- Typist

OCCUPATION MAPPINGS (Continued)

Laborer (LAB)

Armed Forces-Enlisted
Brick Layer
Bus Driver
Farm Laborer
Fireman
Foreman
Gardener
Janitor
Laborer
Truck Driver

Health Care Related (HEA)

Hospital Administrator
Medical Related Specialist
Nurse
Optometrist
Pharmacist
Physician
Podiatrist

Domestic (DOM)

Domestic Worker
Housewife

Dental (DEN)

Dental Asst.
Dental Hyg.
Dental Lab Tech.
Dentist

Sales/Service (SAL)

Sales Clerk
Salesman
Service Worker
Waiter/Waitress

Other (OTH)

Entertainer
Retired
Other

Note: For the "Father's Occupation" the Domestic and Clerical groups were combined into one group--clerical.

For the "Mother's Occupation" the Dental and Health Care Related groups were combined into one group--Health Care Related.

These combinations were made to include enough observations in each category and are consistent with the broader aggregates.

REGIONAL MAPPINGS

New England (NE)

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Middle Atlantic (MA)

New Jersey
New York
Pennsylvania

South-Atlantic (SA)

Delaware
District of Columbia
Florida
Georgia
Maryland
North Carolina
South Carolina
Virginia
West Virginia

East South Central (ESC)

Alabama
Kentucky
Mississippi
Tennessee

East North Central (ENC)

Illinois
Indiana
Michigan
Ohio
Wisconsin

West North Central (WNC)

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

West South Central (WSC)

Arkansas
Louisiana
Oklahoma
Texas

REGIONAL MAPPINGS (Continued)

Mountain (MTN)

- Arizona
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Utah
- Wyoming

Pacific (PAC)

- Alaska
- California
- Hawaii
- Oregon
- Washington

MNEMONIC GUIDE

Code	Description
UNGRCOL	Undergraduate College
DATQUANT	DAT Quantative Score
DATREAD	DAT Reading Score
DATSCI	DAT Science Score
DATAVG	DAT Average
DATPAVG	DAT Perceptual Score
AYRSCOL	Years of College Completed
AMAJOR	Undergraduate College Major
ANSGPA	Undergraduate Non-science Grade Point Average
ASGPA	Undergraduate Science Grade Point Average
ASEX	Gender
AFED	Father's Education
AMED	Mother's Education
CSEX	Gender
CPERMRES	Size of Permanent Residence (Code)
CHSR	High School Rank (Code)
CEDHRS	Hours of College Credit Completed (Code)
CCCGPA	Cumulative College Grade Point Average (Code)
CCSGPA	Cumulative Science Grade Point Average (Code)
PRIMOCC	Primary Occupation (Dentist)
SECOCC	Secondary Occupation (Dentist)
SPEC	Dental Specialty
EMPSTAT	Employment Status
AGEDAT	Age When Taking the DAT
RESCODE	Enroll/Graduation Code
BFSTATE	State in Which Dental Practice Located
AFOCCODE	Father's Occupation (Code)
AMOCCODE	Mother's Occupation (Code)
PBLK	Percentage of the 1980 Population which was Black
DSSTATE	State in Which Dental School Located
UGSTATE	State in Which Undergraduate School Located

Primary and Secondary Occupations, Specialties,
and Employment Statuses

Primary and Secondary Occupation

PRIVPRAC	Private Practice (includes Full-time and Part-time Private Practitioners
FACSTAFF	Dental School Faculty/Staff
ARMFOR	Armed Forces
GOVT	Government (includes other Federal Services and State or Local Government)
INTSTU	Intern/Student (includes Intern/Resident and Other Student)
OTHER	Other (includes Hospital Staff and Other Health/Dental Organization
LOOK	Not in Practice/Looking for Openings
NOT DENT	Not in Dentistry (includes No Longer in Practice/Retired and Occupation Unrelated to Dentistry
NONE	No Secondary Occupation (for Secondary Occupation Only)

Specialty

GENPRAC	General Practice
OTHER	Dental Specialist (includes all Dental Specialties)

Employment Status

OWNER	Owner
OTHER	Non-Owner (includes Non-owner, Associate, Independent Contractor, and Other)

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